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## PERSONALS.

Mr. John Dickson, contractor, of Pittsburg, Pa., died July 19, aged 78.

Mr. Garret J. Byrne, civil engineer, of New York city, died July 20, aged 54.

Mr. Francis E. Mills, civil engineer, of Washington, D. C., died of heart disease, July 22, aged 74.

Mr. Ivy G. Preston has been appointed Superintendent of the New Orleans & Western R. R.

Mr. L. D. Badger, Roadmaster of the Fitchburg R. R., with headquarters at Mechanicsville, N. Y., has resigned.

Mr. Leon H. Hart, Receiver of the Texas, Sabine Valley & Northwestern Ry., has resigned.

Mr. Melville Bitley, Street Commissioner, of Glens Falls, N. Y., died recently.

Hon. Frank Brown, ex-Governor of Maryland and President of the Baltimore Traction Co., has resigned.

Mr. Lewis H. Thomas, of Thomasville, Ill., has been elected President, and Mr. William B. Corneau, Secretary of the new Peoria & St. Louis Ry. Co.

Mr. W. A. Walden, of Charlotte, N. C., will succeed Mr. T. S. Inge as Master Mechanic of the Southern Ry., at Burlington, N. C.

Mr. John Lavin, at one time Roadmaster of the old Fitchburg & Worcester R. R., died recently at Leominster, Mass.

Mr. Frederick L. Lehmann, general partner in the firm of Naylor & Co., iron and steel merchants, of New York, city, died July 23.

Mr. James E. Campbell is to be appointed Electrical Inspector of Detroit, Mich., a newly created office in the Commission of Public Lighting.

Mr. Edward Woodbury, of Kalamazoo, Mich., has been elected President of the Chicago, Kalamazoo & Saginaw Ry., to succeed Mr. A. J. Bowne, deceased.

Mr. Isaac Staples has been elected President, Mr. E. L. Hospes, Vice-President, and Mr. Nels N. Johnson, Superintendent of the Stillwater (Minn.) Gas & Electric Light Co.

Mr. N. Monsarrat, President and General Manager of the Columbus, Sandusky & Hocking Valley R. R., has been elected Vice-President of the Columbus, Hocking Valley & Toledo Ry., with office at Columbus, O.

Mr. R. N. Thomas has been appointed Superintendent of Terminals of the Mexican Central Ry., at Tampico, Mexico, to succeed Mr. W. H. Mealy, whose resignation was announced in our issue of July 16.

Mr. George D. Wick, President of the Union Iron & Steel Co., of Youngstown, O., has been elected President of the Mahoning Valley Iron Co., to succeed Mr. C. D. Arms, deceased.

Mr. William A. House, Vice-President and General Manager of the Baltimore Traction Co., of Baltimore, Md., has been appointed to succeed the Hon. Frank Brown, resigned.

Mr. W. A. Pratt, formerly an engineer on the Baltimore & Ohio R. R., at Martinsburg, W. Va., has accepted the chair of Electrical and Mechanical Engineering in Delaware College.

Mr. V. Preston, General Manager of the Apollo Iron & Steel Co., has been appointed General Manager of the Sharon Iron Co., Ltd., of Sharon, Pa., to succeed Mr. John M. Evans, resigned.

Mr. Chas. H. Warren, General Manager of the Great Northern Ry., with headquarters at St. Paul, Minn., has been granted an indefinite leave of absence on account of the ill-health of his wife.

Mr. Robert A. Crawford, the inventor of the Crawford system of wheel guards and fenders for tract on cars, illustrated in Eng. News, March 8, 1894, p. 194, died in Philadelphia, Pa., last week, aged 27.

Mr. Harry W. Quick, Chief Clerk in the Department of Public Works, of Philadelphia, Pa., for the past nine years, has been appointed Assistant to the Director, a newly created office, at a salary of $3,500, with $400 additional for horse hire.

Mr. Edwin McNeill, Receiver and General Manager of the Oregon Ry. & Navigation Co., has been elected President of the reorganized company. He will also continue to act as General Manager for the present, with headquarters at Portland, Ore.

Mr. Edward A. Eckert, Superintendent of Exchanges of the Metropolitan Telegraph & Telephone Co., of New York city, a brother of Mr. Thomas T. Eckert, President and General Manager of the Western Union Telegraph Co., died of heart disease, July 25, at Asbury Park, N. J.

Mr. Edward S. Washburn, Vice-President of the Kansas City, Fort Scott & Memphis R. R., has been elected President to succeed the late Mr. Geo. H. Nettleton, as well as to a similar office with the Kansas City, Memphis & Birmingham R. R., with headquarters at Kansas City, Mo.

Mr. R. J. Wemyss, Vice-President and General Manager of the Land & River Improvement Co., of West Superior, Wis., has resigned. Mr. Robert Kelly, formerly Receiver for the West Superior Iron & Steel Co., will succeed him, and Mr. D. L. Billings has been appointed Assistant Manager.

Mr. A. L. McRae, formerly Professor of Physics in the University of Texas, has opened an office as a consulting electrical engineer, at 306 Oriel Building, St. Louis, Mo. He was also formerly Assistant Professor of Physics in the State University of Missouri, and later Professor of Physics in the State School of Mines at Rolla, Mo.

Col. L. J. Polk, General Freight Agent of the Gulf, Colorado & Santa Fe Ry., has been appointed Third Vice-President and General Manager to succeed Mr. B. F. Yoakum, whose promotion to the office of First Vice-President and General Manager of the St. Louis & San Francisco Ry., was noted in our issue of July 16.

Mr. T. S. Inge, Master Mechanic, in charge of the machine shops of the Southern Ry., at Burlington, N. C., has been transferred, in the same capacity, to Columbia, S. C., to succeed Mr. Joseph H. Green, who has accepted the position of Master Mechanic with the South Carolina & Georgia R. R., at Charleston, S. C.

Mr. W. W. Wheatley, Car Accountant of the West Shore R. R., has resigned to accept the office of Superintendent of the Brooklyn Heights R. R., Brooklyn, N. Y. He has been with the former road since 1884, holding until 1890 the position of Chief Train Despatcher of the Buffalo Division. He is the Secretary of the New York Railway Club.

Capt. Curtis McD. Townsend, U. S. Engineers, has been relieved from duty with the Mississippi River Commission, and has been ordered to Grand Rapids, Mich., to relieve Lieut.-Col. Garret J. Lydecker, in charge of the river and harbor works on the east shore of Lake Michigan. Capt. Graham D. Fitch will have temporary charge at the former place.

Mr. John Gast, inventor of the three-color process in lithography, died in Brooklyn, N. Y., July 26. He was a native of Berlin, Germany, and after coming to America settled in St. Louis, Mo., where he established the Gast Lithographic Co. A few years later he established the New York "Daily Graphic," a publication no longer in existence.

The New York State Land Survey appointments, as made by Superintendent Colvin, are as follows: Prof. Chas. W. Comstock, of Cornell University, in the Upper Hudson Division; Mr. Frederick W. Bennett, in the St. Lawrence watershed; Mr. W. H. Luster, in the central portion of the Adirondacks; Mr. S. Le Fevre, about the headquarters of West Canada Creek. Among others engaged are Messrs. William C. Ogden and F. B. Clark.

Mr. Joshua C. Bartley, mechanical engineer in the Bureau of Water, of Philadelphia, Pa., for the last 37 years, died July 22. He was born in that city Aug. 1, 1819, and after completing an apprenticeship in the machine shops of Messrs. I. P. Morris & Co., he was sent to Cuba to superintend the construction of sugar mills, and spent thirteen winters there, returning each spring. In 1859 he was appointed Mechanical Engineer at the Spring Garden Pumping Station of the Philadelphia Water-Works, and held this position until 1884, when he was transferred to the Roxborough Station, and remained there until his death.

Mr. Edmund R. Robinson, senior member of the law firm of Robinson, Biddle & Ward, of New York city, counsel for the Pennsylvania R. R., Seaboard Air Line, and the Old Dominion, Inman, Red Star and Clyde steamship lines, died July 24, aged 58. He was born in Philadelphia, Pa., and was graduated from the University of Pennsylvania in 1855 and the Harvard Law School in 1861. He was Secretary of the American Legation in Paris for the next two years, and was admitted to the bar in 1862. He was one of the founders of the Bar Association and for a time was its Vice-President. His death was due to an apoplectic stroke, due to the heat, while at Narragansett Pier, R. I., on July 13.

Mr. Robert Garrett, ex-President of the Baltimore & Ohio R. R., and senior member of the firm of Robert Garrett & Sons, of Baltimore, Md., died at Deer Park, Md., July 29. He was born in Baltimore, April 9, 1847, and graduated from Princeton College in 1867. He entered the railway service in June, 1871, being then elected President of the Valley R. R., a Virginia branch of the Baltimore & Ohio R. R., succeeding Gen. Robert E. Lee. In 1879 he became the Third Vice-President and identified himself with many local and outside enterprises. In Oct., 1881, he was made the First Vice-President, and during Oct. and Nov., 1884, was the President pro tem. He was elected to the office of President in November of that year and held this position until Oct. 12, 1887, when he resigned. Mr. Garrett was an incorporator of the American Union Telegraph Co., which was eventually bought by the Western Union system. Since 1888, Mr. Garrett has lived in retirement at his country seat and at his Baltimore residence.

## ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

TECHNICAL SOCIETY OF THE PACIFIC COAST.
Aug. 7. Secy., O. Von Geldern, 819 Market St., San Francisco, Cal.

CIVIL ENGINEERS' CLUB OF CLEVELAND.
Aug. 11. "Solar Work in Land Surveying and a New Mechanical Method for Doing It," by J. D. Varney. Secy., F. A. Colburn, Case Library Bldg.

NORTHWESTERN SOCIETY OF ENGINEERS.
Aug. 11. Secy., D. W. McMorris, 635 Burke Block, Seattle, Wash.

ENGINEERS' CLUB OF MINNEAPOLIS.
Aug. 17. Secy., E. Mexer, 1620 S. E. 4th St., Minneapolis, Minn.

WESTERN FOUNDRYMEN'S ASSOCIATION.
Aug. 19. Secy., S. T. Johnson, Monadnock Block, Chicago.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.
Aug. 20. Kimball House, Atlanta, Ga. Secy., F. A. Charpiot, Macon, Ga.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.
Aug. 20 to 22. Annual meeting at Buffalo, N. Y.

TACOMA SOCIETY OF CIVIL ENGINEERS AND ARCHITECTS.
Aug. 21. Secy., 201 Washington Bldg.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
Aug. 24. The annual meeting will be held in Buffalo, N. Y. Secy., Prof. F. W. Putnam, Cambridge, Mass.

AMERICAN MATHEMATICAL SOCIETY.
Aug. 31 to Sept. 1. Annual meeting at Buffalo N. Y.

COLUMBIAN ENGINEERING SOCIETY.
Sept. 1. Secy., F. W. Hart, 15th and H Sts., N. W., Washington, D. C.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Sept. 2. Secy., C. W. Hunt, 127 E. 23d St., New York.

ENGINEERING SOCIETY OF WESTERN NEW YORK.
Sept. 7. Secy., Carleton Greene, Library Bldg., Buffalo.

ROADMASTERS' ASSOCIATION OF AMERICA.
Sept 8. Annual meeting at Niagara Falls, N. Y.

RAILWAY SIGNALLING CLUB.
Sept. 8. Secy., Geo. M. Bashford, The Rookery Bldg., Chicago.

WISCONSIN POLYTECHNIC SOCIETY.
Sept. 8. Secy., W. K. Means, Loan and Trust Bldg., Milwaukee, Wis.

DENVER SOCIETY OF CIVIL ENGINEERS.
Sept. 8. Secy., Walter Pearl, 36 Jacobson Bldg.

NORTHWEST RAILWAY CLUB.
Sept. 8. Secy., T. A. Fogue, Soo Line, Minneapolis, Minn.

NEW ENGLAND RAILROAD CLUB.
Sept. 9. Secy., Edw. L. Jones, P. O. box 1158, Boston.

ENGINEERING ASSOCIATION OF THE SOUTH.
Sept. 10. Secy., L. P. Brown, Nashville, Tenn.

ENGINEERS' AND ARCHITECTS' CLUB OF LOUISVILLE.
Sept. 10. Secy., James K. Zollinger, Norton Bldg., Louisville, Ky.

CENTRAL RAILWAY CLUB.
Sept. 11. Secy., H. D. Vought, Buffalo "Courier," Buffalo, N. Y.

NORTHWESTERN TRACK AND BRIDGE ASSOCIATION.
Sept. 11. Secy., D. W. Meeker, St. Paul, Minn.

INDIANAPOLIS ENGINEERING CLUB.
Sept. 12. Secy., C. C. Brown, Indianapolis, Ind.

MONTANA SOCIETY OF ENGINEERS.
Sept. 12. Secy., Forrest J. Smith, Denver Block, Helena.

ENGINEERS' CLUB OF KANSAS CITY.
Sept. 14. Secy., F. W. Tuttle, Baird Bldg.

WESTERN RAILWAY CLUB.
Sept. 15. Secy., W. D. Crosman, Owings Bldg., Chicago.

ASSOCIATION OF ENGINEERS OF VIRGINIA.
Sept. 16. Secy., J. A. Pilcher, Roanoke, Va.

BOSTON SOCIETY OF CIVIL ENGINEERS.
Sept. 16. Secy., S. E. Tinkham, City Hall.

AMERICAN INSTITUTE ELECTRICAL ENGINEERS.
Sept. 16. Secy., R. W. Pope, 26 Cortlandt St., New York city.

ENGINEERS' CLUB OF ST. LOUIS.
Sept. 16. "The Galveston Harbor Improvements," W. J. Sherman. Secy., Wm. J. Bryan, Turner Bldg.

ENGINEERS' CLUB OF CINCINNATI.
Sept. 17. Secy., J. F. Wilson, P. O. box 333.

ENGINEERS' SOCIETY OF WESTERN PENNSYLVANIA.
Sept. 17. Secy., Daniel Carhart, Carnegie Library, Allegheny, Pa.

NEW YORK RAILROAD CLUB.
Sept. 17. Secy., W. W. Wheatley, Weehawken, N. J.

AMERICAN INSTITUTE OF MINING ENGINEERS.
Sept. 21 to 30. Annual meeting at Denver, Colo. Secy., R. W. Raymond, 13 Burling Slip, New York city.

WESTERN SOCIETY OF ENGINEERS.
Sept. 23. Secy., Henry Goldmark, Monadnock Block, Chicago.

ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 20. Annual meeting at Chicago. Secy., S. F. Patterson, Concord, N. H.

AMERICAN STREET RAILWAY ASSOCIATION.
Oct. 24 and 25. Annual convention at St. Louis.

## CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

| Bids to be opened. | Work. | Place. | See Eng. News. |
|---|---|---|---|
| July 30. | Plumbing, | Barnstable, Mass. | July 23 |
| July 30. | Macadam road (9 miles), | Jamaica, N. Y. | July 23 |
| | Advertised, Eng. News, July 16 and 23. | | |
| July 29. | School building, | Baltimore, Md. | July 23 |
| July 29. | Electric light plant, | Cincinnati, O. | July 23 |
| July 30. | Pig lead (100 tons), | Buffalo, N. Y. | July 23 |
| July 30. | Heating, plumbing, etc., | Palmer, Mass. | July 23 |
| July 30. | Levee work, | Memphis, Tenn. | July 23 |
| July 30. | Steam fire engines (5), | Chicago, Ill. | July 23 |
| July 30. | Pumping engines, | Petrolea, Ont. | July 16 |
| | Advertised, Eng. News, July 16 and 23. | | |
| July 30. | Electric light franchise, | Goldsboro, N. C. | July 16 |
| | Advertised, Eng. News, July 16 and 23. | | |
| July 30. | Plans for city hall, | Mt. Vernon, N. Y. | July 16 |
| July 30. | Levee work, | Memphis, Tenn. | July 16 |
| July 30. | Light station at Smith Point, | Va. | July 16 |
| July 30. | Freight elevator, | Washington, D. C. | July 16 |
| July 30. | Street bonds ($13,135), | Wellston, O. | July 16 |

July 30. Bridge substructures (3), Reading, Pa. ..... July 9
July 30. Mill building, Stonington, Conn. ..... July 9
July 30. Brick paving, Fort Dodge, Ia. ..... June 25
July 31. St. ry franchise, Kingston, Jamaica, W. I. May 28
July 31. Public lighting, Utica, N. Y. ..... July 2
July 31. Lake tunnels, Cleveland, O. ..... July 2
Advertised, Eng. News, July 2 to 23.
July 31. Bridge superstructures (3), Reading, Pa. ..July 9
July 31. Brick or asphalt paving, Richmond, Ind. ..July 16
July 31. Paving, Athens, O. ..... July 16
July 31. Police station, New York, N. Y. ..... July 23
July 31. Cribs (7), Detroit, Mich. ..... July 23
Advertised, Eng. News, July 23 and 30.
July 31. Paving, grading, etc., Pittsburg, Pa. ..... July 23
July 31. Brick and pipe sewers, Pittsburg, Pa. ..... July 23
July 31. Disinfecting plant, Pittsburg, Pa. ..... July 23
July 31. School building, Chicago, Ill. ..... July 23
July 31. Granite block paving, Troy, N. Y. ..... July 23
July 31. Sewer, Duluth, Minn. ..... July 30
July 31. Sewers (24), Pittsburg, Pa. ..... July 30
July 31. Paving, etc., (12 Sts.), Pittsburg, Pa. ..... July 30
Aug. 1. Water bonds, Washingtonville, N. Y. ..... July 30
Aug. 1. Brick conduit, Boston, Mass. ..... July 30
Aug. 1. Ditching, St. Paul, Minn. ..... July 30
Aug. 1. Water bonds, Suisun, Cal. ..... July 30
Aug. 1. Electric light plant, Mt. Pleasant, Ia. ..... July 30
Aug. 1. Iron bridge, Austin, Tex. ..... July 30
Aug. 1. Steam engine lathe, drill, Baltimore, Md. ..July 23
Aug. 1. Asphalt paving, etc., New York, N. Y. ..... July 23
Aug. 1. Plans for school bldg., Hartford, Conn. ..... July 23
Aug. 1. Water-works, Silver Creek, N. Y. ..... July 23
Advertised, Eng. News, July 23 and 30.
Aug. 1. Reservoir, Tyrone, Pa. ..... July 23
Advertised, Engineering News, July 23.
Aug. 1. Boiler, Ironton, O. ..... July 23
Aug. 1. Sewers, Washington, D. C. ..... July 16
Advertised, Engineering News, July 16.
Aug. 1. Interior of capitol building, Denver, Colo. July 16
Aug. 1. Water bonds, Painesville, O. ..... July 9
Aug. 1. Telford paving, etc., Elizabeth, N. J. ..... July 9
Aug. 1. Plans for city hall, Binghamton, N. Y. ..... June 4
Aug. 1. County jail work, Minneapolis, Minn. ..... June 18
Aug. 3. Water bonds, Salmon, Idaho ..... July 9
Aug. 3. Mortars, steel forgings, etc., Washington. ..July 9
Aug. 3. Garbage franchise, Oakland, Cal. ..... July 16
Aug. 3. Brick paving, etc., Crawfordsville, Ind. ..July 16
Aug. 3. Brick paving, Toledo, O. ..... July 16
Aug. 3. Paving bonds ($12,000), Archbold, O. ..... July 16
Aug. 3. Gun forgings, Washington, D. C. ..... July 16
Aug. 3. Court house, Lexington, Tenn. ..... July 23
Aug. 3. Hospital buildings, etc. (3), New York. ..... July 23
Aug. 3. Brick paving, Galesburg, Ill. ..... July 23
Aug. 3. Brick sewers (3,500 ft.), Providence, R.I. ..July 23
Advertised, Eng. News, July 23 and 30.
Aug. 3. Water-works, Doon, Ia. ..... July 23
Advertised, Engineering News, July 23.
Aug. 3. Fire hose, Baltimore, Md. ..... July 23
Aug. 3. Iron bridges (3), Buffalo, N. Y. ..... July 23
Aug. 3. Bridge bonds ($60,000), Paterson, N. J. ..... July 23
Aug. 3. Bridge, San Jose, Cal. ..... July 23
Aug. 3. Grading, Kansas City, Mo. ..... July 23
Aug. 3. Street work, Delford, N. J. ..... July 23
Advertised, Engineering News, July 23.
Aug. 3. Brick paving, Albany, N. Y. ..... July 30
Aug. 3. Brick paving, La Grange, Ill. ..... July 30
Aug. 3. Paving, Lincoln, Ill. ..... July 30
Aug. 3. County bridges, Hillsboro, N. Dak. ..... July 30
Aug. 3. Sewer system, Manor Station, Pa. ..... July 30
Aug. 3. Paving, Rochester, N. Y. ..... July 30
Aug. 3. Street supplies, Cumberland, Md. ..... July 30
Aug. 3. Paving (15,000 yds.), Joliet, Ill. ..... July 30
Aug. 3. Elec. or gas street light'g, Cumberland, Md. July 30
Aug. 3. Pipe sewer, Rochester, N. Y. ..... July 30
Aug. 3. Bridge abutments (4), Milwaukee, Wis. ..July 30
Aug. 4. School building work, Brooklyn, N. Y. ..July 30
Aug. 4. Sewer, Knoxville, Pa. ..... July 30
Aug. 4. Supplies for New York Navy Yard. ..... July 30
Advertised, Engineering News, July 30.
Aug. 4. Stone paving, Jersey City, N. J. ..... July 30
Aug. 4. Fireproof safe, Jacksonville, Fla. ..... July 30
Aug. 4. Painting bridges, St. Paul, Minn. ..... July 30
Aug. 4. Iron bridges (2), Marlboro, Md. ..... July 30
Aug. 4. Hospital buildings, Collins, N. Y. ..... July 23
Advertised, Engineering News, July 23.
Aug. 4. Sewers, Brooklyn, N. Y. ..... July 23
Aug. 4. Pipe sewers (3,700 ft.), Monticello, Ill. ..... July 23
Advertised, Engineering News, July 23.
Aug. 4. Water-works, Edwardsville, Ill. ..... July 23
Aug. 4. Post office building, Madison, Wis. ..... July 16
Advertised, Eng. News, July 16 and 23.
Aug. 4. Sewer system, Champaign, Ill. ..... July 16
Advertised, Eng. News, July 16 and 23.
Aug. 4. Steward's quarters, Fort Myer, Va. ..... July 9
Aug. 5. Wire fence, Washington, D. C. ..... July 23
Aug. 5. Sewers, Cleveland, O. ..... July 23
Aug. 5. Drainage system, Youngstown, N. Y. ..... July 23
Aug. 5. Macadam road, Washington, D. C. ..... July 23
Aug. 5. Observation towers, Washington, D. C. ..... July 23
Aug. 5. Dock and crib work, New York Harbor. ..July 30
Aug. 5. Sewer supplies, etc., Beverly, Mass. ..... July 30
Aug. 5. Brick and pipe sewers, Kansas City, Mo. ..July 30
Aug. 6. Dams, etc., Norwalk, O. ..... July 30
Advertised, Engineering News, July 30.
Aug. 6. Asphalt paving, Brooklyn, N. Y. ..... July 30
Aug. 6. Brick paving, Erie, Pa. ..... July 30
Advertised, Engineering News, July 30.
Aug. 6. Dams, wells, etc., Norwalk, O. ..... July 30
Advertised, Engineering News, July 30.
Aug. 6. Water and light plant, Fosston, Minn. ..July 30
Aug. 6. Telford road, Greenwich, Conn. ..... July 30
Aug. 6. Enlarging town hall, Hudson, O. ..... July 23
Aug. 6. Bridge, Shelton, Wash. ..... July 23
Aug. 6. Electric wiring, etc., Poughkeepsie, N.Y. ..July 23
Aug. 6. Macadam road (2 miles,) Jamaica, N. Y. ..July 23
Advertised, Eng. News, July 16 and 23.
Aug. 7. Postoffice building, Meridian, Miss. ..... July 23
Aug. 7. Addition school bldg., W. Liberty, W. Va. July 23
Aug. 7. Brick paving, Beloit, Wis. ..... July 23
Advertised, Eng. News, July 23 and 30.
Aug. 7. Macadam paving, Beloit, Wis. ..... July 23
Advertised, Eng. News, July 23 and 30.
Aug. 7. Water-works, Three Oaks, Mich. ..... July 23
July 7. Stone and brush jetty, Sandusky, O. ..... July 23
Aug. 7. Brick paving, etc., Fortress Monroe, Va. ..July 23
Aug. 7. Sewage disposal plant, Altoona, Pa. ..... July 30
Aug. 7. Brick paving, Monmouth, Ill. ..... July 30
Aug. 8. Roof, etc., court house at Lowell, Mass. ..July 30
Aug. 8. Power house, Ogden, Utah ..... July 30
Aug. 8. Asphalt paving (2½ m.), New York. ..... July 30
Aug. 8. Building bonds, Oregon City, Ore. ..... July 23
Aug. 8. Brick paving, Evanston, O. ..... July 23
Aug. 10. Heating and power plant, Cincinnati, O. ..July 23
Aug. 10. Macadam road (5 m.), Long Branch, N.J. July 23
Advertised, Eng. News, July 23 and 30.
Aug. 10. Water supply, Missoula, Mont. ..... July 23
Aug. 10. Pumping engine, Binghamton, N. Y. ..... July 16
Advertised, Eng. News, July 16 to Aug. 6.
Aug. 10. Macadam road, Long Branch, N. J. ..... July 16
Aug. 10. Rubber hose (5,000 ft.), Jeffersonville, Ind. July 16
Aug. 10. Police station, Carbondale, Pa. ..... July 23
Advertised, Eng. News, July 23 and 30.
Aug. 10. Electric light plant, Dawson, Ga. ..... July 23
Aug. 10. Wire fence (18,000 ft.), Wakefield, Va. ..July 23
Advertised, Engineering News, July 30.
Aug. 10. Electric light plant, Vicksburg, Mich. ..... July 30
Aug. 10. Water-works, Vicksburg, Mich. ..... July 30
Aug. 11. Water-works, Phelps, N. Y. ..... July 30
Advertised, Engineering News, July 30.
Aug. 12. Subway widening, Toronto, Ont. ..... July 30
Advertised, Engineering News, July 30.
Aug. 11. Pipe sewers, Frankfort, Ind. ..... July 23
Aug. 11. Pipe sewer, Frankfort, Ind. ..... July 23
Aug. 11. Brick paving, etc., Cincinnati, O. ..... July 16
Aug. 11. Passenger elevator, Newark, N. J. ..... July 16
Advertised, Eng. News, July 16 and 23.
Aug. 11. Sewers, Cincinnati, O. ..... July 16
Aug. 12. Heat'g and vent'l'g, Fergus Falls, Minn. July 23
Aug. 12. College building, Cincinnati, O. ..... July 23
Aug. 12. Timber bridge, Cleveland, O. ..... July 23
Aug. 12. Asphalt paving, Cleveland, O. ..... July 23
Aug. 12. Gun emplacement materials, Finns Pt., N.J. July 30
Advertised, Eng. News, July 30 and Aug. 6.
Aug. 12. Street supplies, Charleston, N. C. ..... July 30
Aug. 12. Macadam roads (12½ m.), Monticello, Ind. July 30
Aug. 13. Jail, Greenville, Ga. ..... July 30
Aug. 13. Water-works, Skaneateles, N. Y. ..... July 30
Advertised, Eng. News, July 30 and Aug. 6.
Aug. 13. Stand-pipe, Bangor, Me. ..... July 23
Advertised, Eng. News, July 16 to Aug. 6.
Aug. 13. Cement, sand and stone, Boston, Mass. ..July 16
Advertised, Eng. News, July 16 to 30.
Aug. 14. Brick paving, Arcola, Ill. ..... July 16
Aug. 14. Store house, Willet's Point, N. Y. ..... July 23
Aug. 14. Smokestack foundat'n, etc., Cleveland, O. July 23
Aug. 14. Brick and asphalt paving, New York. ..... July 30
Aug. 14. Post office building, South Bend, Ind. ..... July 30
Aug. 15. Sewer materials, Washington, D. C. ..... July 30
Advertised, Engineering News, July 30.
Aug. 15. Railway, Concord, N. H. ..... July 30
Aug. 15. Water-works, Le Roy, N. Y. ..... July 30
Advertised, Eng. News, July 30 and Aug. 13.
Aug. 15. Ferryboat, Dartmouth, N. S. ..... June 25
Aug. 15. Heating and plumbing, Plattsburg, N. Y. July 23
Aug. 15. Dike work in Hudson River, ..... July 23
Advertised, Eng. News, July 23 to Aug. 6.
Aug. 17. Street railway franchise, Los Angeles, Cal. July 23
Aug. 17. Trent Canal work (14 m.), Ottawa, Ont. ..June 25
Aug. 17. Sewers, siphons, etc., Woonsocket, R. I. ..July 23
Advertised, Eng. News, July 23 and 30.
Aug. 17. Water bonds, Gibsonburg, O. ..... July 30
Aug. 17. Bridge at Fort Hudson, La. ..... July 30
Aug. 18. School bldgs, etc., in South Dakota. ..... July 30
Aug. 18. Building work, Grant's Pass, Ore. ..... July 30
Aug. 20. Water-works, Opelousas, La. ..... July 30
Aug. 20. Removing wrecks, St. Augustine, Fla. ..... July 23
Advertised, Eng. News, July 23 to Aug. 13.
Aug. 20. Dam, pier, etc., Cincinnati, O. ..... July 16
Advertised, Eng. News, July 16 to Aug. 6.
Aug. 20. Electric light plant, Ocala, Fla. ..... July 30
Aug. 20. Electric lighting, Eugene, Ore. ..... July 30
Aug. 21. Dynamo and lights, Newark, O. ..... July 30
Aug. 21. Postoffice building, Racine, Wis. ..... July 23
Advertised, Eng. News, July 23 and 30.
Aug. 21. College buildings, San Francisco, Cal. ..... July 30
Aug. 22. Engine house, Allegheny, Pa. ..... July 23
Aug. 24. Sewer bonds ($11,000), Yeadon, Pa. ..... July 23
Aug. 24. Dredging in Canarsie Bay, N. Y. ..... July 30
Advertising, Eng. News, July 30 to Aug. 20.
Aug. 24. Dredging in Shoal Harbor, N. J. ..... July 30
Advertising, Eng. News, July 30 to Aug. 20.
Aug. 24. Dredging and jetty, Patchogue River, N.Y. July 30
Advertising, Eng. News, July 30 to Aug. 20.
Aug. 25. Buildings at Jefferson Barracks, Mo. ..July 30
Aug. 31. Electric light franchise, Mexico, Mex. ..July 30
Sept. 2. Bridges (2), Chicago, Ill. ..... July 16
Sept. 3. Plans for school bldg., Lancaster, Pa. ..July 23
Sept. 4. Pumping engines, St. Louis, Mo. ..... May 14
Sept. 7. Wooden bridge, White Sulphur Spgs., Mont. July 23
Sept. 10. Designs for monument, Chickamauga, Ga. July 30
Sept. 11. Bridge, Redding, Cal. ..... July 30
Sept. 14. Battleships (3), Washington, D. C. ..... July 16
Sept. 18. Torpedo boats, Washington, D. C. ..... June 25
Sept. 22. Court house, Auburn, Cal. ..... July 30
Oct. 6. Hospital building, Cherokee, Ia. ..... July 30

## RAILWAYS.

### East of Chicago.

ASHLAND & WOOSTER.—H. B. Camp, Akron, O., writes us that this railway is projected to connect West Lebanon, Apple Creek, Wooster and Ashland, O. No officers have as yet been selected.

BALTIMORE & OHIO.—Newspaper reports state that this company will spend about $500,000 in terminal improvements at Cleveland, O. Contracts are also stated to have been awarded for improvements on the terminal facilities at Pittsburg, Pa. The Drake & Stratton Co., of Philadelphia, Pa., has the contract for about 10,000 cu. yds. of masonry. Booth & Flynn, of Pittsburg, have been awarded a contract for paving. It is estimated that the work to be done will cost about $2,000,000. A contract for painting the Pittsburg station has been awarded to Isaac McCurry & Sons, of Baltimore.

DETROIT & MACKINAC.—The extension to Bay City, Mich., will be finished within a few weeks. The old line of this railway is 160 miles long. Ch. Engr., D. J. Casey, Bay City, Mich.

GLENWOOD.—A charter has been issued to this company to build a railway from a point on the Pittsburg & Connellsville R. R., in the 23d Ward of Pittsburg, Pa., to a point on the main line of the same road between the stations of Marion and Laughlin Junction, length of line to be two miles; capital stock, $20,000. Pres., James B. Washington; directors, A. W. Black, S. K. Harris, O. A. Constans, Howard Q. Turner, James A. Smith and Thomas W. Gallagher.

LAWRENCEBURG, SOUTH BEND & MILWAUKEE.—A dispatch from Ligonier, Ind., states that John M. Caulfield is at the head of a project to give Indiana cities direct communication with Milwaukee by the construction of a railway from Lawrenceburg, Ind., to Benton Harbor, the northern terminus, and thence by transports to Milwaukee. Benton Harbor has voted $15,000 for the construction of a bridge across the St. Joe River, near Royalton, on the proposed route, which has been surveyed from Lawrenceburg to Benton Harbor.

LAKE SHORE & MICHIGAN SOUTHERN.—It is stated that this company will spend $200,000 in new equipment. Orders for 12 locomotives and about 900 freight cars are to be placed. Supt., P. S. Blodgett, Cleveland, O.

LEHIGH VALLEY.—Press reports state that extensive improvements are to be made at Rochester, N. Y., which will include an extension of tracks and a new depot. Ch. Engr., Chas. E. Webster, South Bethlehem, Pa.

NORTHEASTERN.—This company has been incorporated with headquarters at Cleveland, O; capital stock, $100,000. The company proposes to build and operate a railway through Cuyahoga, Lake and Summit counties, O.; terminating in the latter county.

NEW ENGLAND GRANITE.—Bids are asked by this company, located at Concord, N. H., until Aug. 15, for estimates for putting in road-bed for a proposed railway track. For profile and all information address F. A. Merrill, Concord, N. H.

SEBASTICOOK & MOOSEHEAD.—W. T. Davis & Son, Boston, Mass., are stated to have a contract with this company to do grading near Harmony, Me. The firm has already begun work.

WILKES BARRE & NORTHERN.—C. H. Cooke, Asst. Engr., Dallas, Pa., writes us that the project; length is eleven miles, connecting Luzerne, Truckville, Ice Cave, Dallas, Idetown and Harvey Lake. The right of way from Luzerne to Dallas has been fixed for a distance of six miles and a great portion graded. Cars will be running as far as Dallas by Oct. 1. This may be the terminus of the road until spring. Ties are being distributed along the route. Tracklaying is expected to begin about Aug. 1. A. A. Holbrook, contractor, Pres., John B. Reynolds, Wilkes Barre, Pa.; Ch. Engr., Thos. Wright, Luzerne, Pa.

WISCASSET & QUEBEC.—The stockholders are said to have voted to issue $900,000 in bonds to extend this railway from Wiscasset to Pittsfield, Me. Supt., J. P. Tucker, Wiscasset, Me.

WHEELING & LAKE ERIE.—It is stated that this company proposes to build considerable second track this year between Wheeling, W. Va., and Toledo, O., and something on the extension from Martin's Ferry, O., to Bellaire, O. Ch. Engr., W. J. Sherman, Toledo, O.

### Southern.

ABERDEEN & TENNESSEE RIVER.—A press report from Aberdeen, Miss., states that this railway is being surveyed from Aberdeen via Amory, Smithville, Fulton, Walker's Ridge, Bay Springs, and Burnsville to Pittsburg Tenn., on the Tennessee River. W. C. Fitzgerald, Pres., and A. P. Taliaferro, Secy and Treas. The right of way has been granted on nearly the entire line. It is intended to begin work on the road about Sept. 1. This road will be about 120 miles long and runs through fine timber lands.

CAROLINA, TENNESSEE & OHIO.—It is stated that Frank H. Blodgett, contractor for this railway, between Wilmington and Southport, N. C., has begun work in Brunswick county. The grading will commence in a few days. It is expected to begin laying rails in August, and to complete the 30 miles of road by Nov. 30.

CHARLESTON, CLENDENIN & SUTTON.—It is reported that work on this line, which is ultimately to extend from Charleston to Sutton, Braxton county, W. Va., is being pushed rapidly. An iron bridge 100 ft. in length, over Big Buffalo Creek, has been completed and tracklaying is in progress beyond that point.

CAPE FEAR & YADKIN VALLEY.—This company is building a branch railway from Greensboro, N. C., to a point in Chatham county, where new iron mines are being developed. One or two locomotives and flat cars will be bought. Gen. John Gill, receiver, Baltimore, Md.; Ch. Engr., H. L. Fry, Greensboro, N. C.

GEORGIA & SOUTH CAROLINA.—Savannah capitalists will build a 25-mile railway from Savannah, Ga., to a point in Beaufort county, S. C. Surveys have been made. The road will pass by Bluffton, S. C., and the terminus will reach a deep water point on the waters of which Port Royal is the entrance.

NORFOLK, WILLOUGHBY SPIT & OLD POINT.—The stockholders of this road met at Norfolk, Va., last week and elected the following officers: Pres., H. L. Page, Vice-Pres., I. A. Page; Secy. and Treas., E. C. Norton. Work on the road from the terminus of the Ocean View Ry., at Norfolk to Willoughby Spit, will begin at once.

PITTSBURG, LAW GAP & ADDISON.—This company has been incorporated to build a railway; capital stock, $200,000; incorporators: J. L. Wheeler, H. F. Miller, A. D. Miller, A. C. Burch, T. W. White, all of Wainville, W. Va.

PRIVATE.—H. Krug, Krug, Md., writes us that A. Knabb & Co. are building five miles of narrow gage railway for logging purposes. The company has already completed seven miles. The company is doing its own constructing.

### Northwest.

CHICAGO, MILWAUKEE & ST. PAUL.—Press reports state that work on the double-track of the Council Bluffs division has been resumed, and the second track will be completed to Genoa, Ill., 50 miles, by Sept. 1, and by Jan. 1 it is expected it will be extended to Savannah, Ill., on the Mississippi River, 138 miles from Chicago. Ch. Engr., D. J. Whittemore, Chicago, Ill.

CHICAGO & NORTHWESTERN.—A press dispatch from Oskaloosa, Ia., states that the contract for building six miles of new railway in this county has been let to John F. Gunn, of Oskaloosa. The new line will run from Stark Station to a new coal shaft six miles west.

CHICAGO & NORTHWESTERN.—John E. Blunt, Ch. Engr., Chicago, Ill., writes us that the projected length of the Wisconsin Northern extension, noted in our issue of July 23, is 60 miles; 30 miles are now graded and 6 miles of track laid.

MINNEAPOLIS, ST. PAUL & ASHLAND.—Press reports state that on the first section running southwest from Ashland, Wis., a distance of 25 miles, the grading has been completed. Some time soon the contracts for the remainder of the road to St. Paul will be let in Minneapolis. The line will be about 180 miles long. Rails for the entire line will be received at Ashland by water, and laid from there southwesterly. The road will open the most valuable hard wood and pine left in northwest Wisconsin.

PEORIA & ST. LOUIS.—It is reported that D. L. Wing, Springfield, Ill., has the contract for construction. Right of way is secured from Springfield to Pekin and work is to begin soon. Pres., Lewis H. Thomas, Thomasville, Ill.; Secy., Wm. B. Corneau, Springfield, Ill.

### Southwest.

BAY CITY & BOLIVAR.—It is stated that a company has been organized at Houston, Tex., to build a railway to connect Bay City with Bolivar, Tex., a point about seven miles above Columbia, on the Brazos River, in Brazari county. An old roadbed from Columbia to Wharton will be used, giving about 20 miles already graded. The road when finished will be about 35 miles long. It is proposed to extend it ultimately from Bolivar to Chenango, a distance of about four miles, to connect with the Velasco Terminal.

CASSVILLE & WESTERN.—It is stated that this road has just been completed between Exeter, on the St. Louis & San Francisco main line, to Cassville, Barry county, Mo., a distance of five miles. J. M. Bayless, of Cassville, Pres. and Gen. Mgr., is the principal owner of the road. It is expected that it will be extended from Cassville to Harrison, Ark., 62 miles.

DALLAS TERMINAL.—A press dispatch from Dallas, Tex., states that work has been resumed on this railway and that the road will be ready for use by fall.

OKLOONA & SOUTHWEST ARKANSAS.—The Atkins, Ark., "Chronicle" states that J. A. Woodson, receiver, has awarded to Contractor Dodson the work of extending this railway from a point three miles from Antoine, Ark., to the site of a new town to be known as Pine City, a distance of ten miles west into Pike county. The grade is already completed and the rails will be down by Sept. 1. The line will then be 35 miles in length.

OMAHA, KANSAS CITY & EASTERN.—This company has been incorporated in Missouri with a capital of $1,500,000, to construct 34 miles of railway between Plattsburg, Mo., and Trenton, Mo., purchase the Quincy, Omaha & St. Louis Ry. and also the Omaha & St. Louis, thus securing a continuous line from the Missouri River to Quincy on the Mississippi.

WHITE RIVER VALLEY & WESTERN.—Nathan B. Williams, Secy., Fayetteville, Ark., writes us that this company has been incorporated with a capital stock of $2,000,000, $250,000 subscribed, to build a railway 250 miles long, from some point on the Kansas City, Pittsburg & Gulf R. R., in Indian Territory, by way of Fayetteville and Harrison, Ark., eastward to intersect the Iron Mountain R. R. This line will open a country of 8,000 square miles, and in which there are 175,000 people without railroad facilities of any kind, and which is rich in zinc, building stone, timber and agricultural lands. Among the incorporators are: Geo. A. Haggerty, Southbridge, Mass.; G. H. Candee, Lowell, Mass.; Chas. Babbidge, Brooklyn, N. Y.; Egbert Guernsey, New York, N. Y.; and Geo. P. Bassett, Cincinnati, O. The company will soon begin a complete survey of the line, and when the same is finished will issue a prospectus to railway men and investors generally.

### Rocky Mountain and Pacific.

NATCHEZ PASS.—The Tacoma, Wash., "Ledger" states that this company has been incorporated with a capital stock of $15,000 to build a logging railway. Five miles of track have already been laid; incorporators: James McNeely, Wm. Fettig and Thos. McNeely, Buckley, Wash.

SAN FRANCISCO & SAN JOAQUIN VALLEY.—It is expected that tracklaying will be completed to Fresno, Cal., within a few weeks, and construction work is being pushed vigorously. The line will extend from Stockton to Bakersfield, passing through a rich wheat country. Several additional engines have been ordered from the Baldwin Locomotive Works, and additional cars have also been ordered. Ch. Engr., W. B. Storey, San Francisco.

SALT LAKE & PACIFIC.—This company has surveyed two routes of 100 miles each from Salt Lake City to the Dugway lead mining district. The construction would be light, with maximum grades of 80 ft. per mile, crossing the desert. Ch. Engr., H. M. McCartney, Salt Lake City.

SOUTHERN PACIFIC.—Work is in progress on the new Coast Line to Los Angeles, Cal., extending south from San Jose, where it connects with the line entering San Francisco, thus avoiding the detour of the line to Oakland with ferry connection to San Francisco. The grades will be much easier than on the present line, and it is expected that the time of the trip between the two cities will be cut down by five or six hours. The line is being very substantially built for heavy traffic. Some small spurs and branches are also being built in the fruit districts. Ch. Engr., Wm. Hood, San Francisco, Cal.

UTAH & CALIFORNIA.—The field parties have been called in for the present to await developments in the financial conditions. The line is proposed to extend from Milford, on the San Francisco branch of the Union Pacific Ry., to a connection with the Southern Pacific Ry., near Los Angeles, thereby affording a direct line from Salt Lake City to Southern California. The road would use about 125 miles of roadbed graded some years ago by the Union Pacific Ry. Ch. Engr., H. M. McCartney, Salt Lake City, Utah.

### Foreign.

HAYTI.—It is stated that Dantes Destouches has engaged to construct for the government of Hayti a single-track railway, starting from Port au Prince, to end at the Lakes. The length will be about 25 miles, through Croix-des-Bouquets, through the great and little plains of Culde-Sac in such manner as to reach the most populous communities. The gage will be 3 ft. 3.37 ins.; rails shall weigh about 50 lbs. per yd.; all buildings to be of brick and iron.

## STREET AND ELECTRIC RAILWAYS.

AMHERST, MASS.—The stockholders of the Amherst Electric Ry. have voted to accept the franchise recently granted for its railway between Amherst and Sunderland. An assessment of 30% was also voted for the building.

BOSTON, MASS.—A petition has been filed by Geo. A. Lancaster, James H. Mellen and associates for a charter to operate a system of elevated and surface railways in Boston and its suburbs. This association put in a bid to the Transit Commissioners on Monday for right to use the Boston subways.

CONWAY, MASS.—At a meeting of the stockholders of the Conway Electric R. R. Co. it was unanimously voted to extend the track across the Deerfield River to connect with the Fitchburg R. R. The stock is nearly all subscribed and work will begin as soon as a small balance is secured. Supt., A. M. Cook.

ENFIELD, MASS.—It is stated that the Enfield & Longmeadow Electric Ry. Co. will extend its tracks and build a new power house.

WOBURN, MASS.—It is reported that the Woburn & Reading Electric St. R. R. will connect its tracks with those of the North Woburn St. R. R. The North Woburn R. R. will be equipped and operated by electricity in about two weeks.

BRIDGEPORT, CONN.—It is reported that surveyors are at work on an electric railway from this place to Shelton. The Bridgeport Traction Co. is pushing the extension. Pres., A. Radel.

ROCKVILLE, CONN.—A survey for an electric railway is being made for the Rockville & Ellington St. Ry. Co., to connect this city and Talcottville.

ALBANY, N. Y.—The Albany, Helderberg & Schoharie Electric Ry. Co. has received a franchise for an electric railway. Pres., John W. Van Valkenburg, 71 State St.

BALLSTON SPA, N. Y.—The Ballston Terminal Electric Ry. Co. is stated to be building an electric railway from this place to Rock City Falls, N. Y. It is expected to be completed this summer.

LYONS, N. Y.—The Wayne County Traction Co. has been formed to build an electric railway from Lyons to Newark, N. Y. The capital stock is $60,000. Orlando F. Thomas, D. N. Johnson, F. K. Harris, Athens, Pa., and Burton Hammond, Chas. T. Ennis, Clermont R. Sherwood, Lyons, N. Y., are interested.

PORT JEFFERSON, N. Y.—The Port Jefferson & Patchogue Electric Ry. Co. has been incorporated to build an electric railway from Port Jefferson across Long Island, a distance of 14 miles. The cost of building and equipping is estimated at $400,000.

TRENTON, N. J.—Newspaper reports state that the Philadelphia & Bristol Electric Ry. will be extended to Trenton.

GREENSBURG, PA.—The Pittsburg "Dispatch" states that work has begun on the Greensburg, Jeannette & Pittsburg Electric Ry. The present line will be completed in about a month. It will then be extended to Irwin, Pa.

WASHINGTON, D. C.—F. H. Stier, C. E., writes us that the Glen Echo Electric R. R. Co. is building an extension 1½ miles long to Chevy Chase, D. C., making connection there with the lines of the Capitol Traction Co. Grading is well under way and all materials on hand for a double-track stone-ballasted road. The four miles of road now in operation will be rebuilt and ballasted, and the power houses enlarged and improved. Pres., Edwin Baltzley, Washington, D. C.

PENSACOLA, FLA.—A franchise has been granted to W. H. Bosley, Baltimore, Md., to build an electric railway. It is expected that work will begin at once.

JEFFERSONVILLE, IND.—On Aug. 20 the Jeffersonville St. Ry. will be sold to the highest bidder. The company owns five miles of track and equipment for operating with mules. Pres., Ed. J. Howard.

ADRIAN, MICH.—It is stated that it is proposed to utilize the old roadbed of the railway which formerly ran from Adrian to Tecumseh by putting in an electric line between the two cities, a distance of about ten miles.

DETROIT, MICH.—It is reported that the Detroit Ry. Co. is to make extensive additions. Supt. F. Starring.

LUDINGTON, MICH.—An electric railway may be built from Ludington to Hart. Ludington citizens are interested.

CHICAGO, ILL.—The street railway companies that are now operating their lines by horses are reported to have been granted permission to use electricity.

LOS ANGELES, CAL.—The "Times" states that the Main St. & Agricultural Park Ry. Co. is making preparations to use electricity.——It is reported that the Traction Co. intends building an electric road to Redondo Beach in the near future, and has secured the right of way.

SAN FRANCISCO, CAL.—An electric railway is projected from San Francisco, via San Bruno, San Mateo, Rewood City and Palo Alto to San Jose. San Francisco capitalists are interested.

## ELECTRIC LIGHT AND POWER.

BATH, ME.—The Bath Gas & Electric Co. will enlarge its plant to supply power to the Hyde Windlass Co., whose new works are now under construction.

BETHEL, VT.—The Bethel Electric Light & Power Co. contemplates extending its lines and service to Randolph, if the demand for power there warrants it.

SOUTH ORANGE, N. J.—The People's Light & Power Co., of Newark, N. J., has been awarded the contract for 32-c. p. incandescent lights, at the rate of $17 a lamp for one year, with the privilege of extending the contract two years at $16.50 a lamp, and four more years at the rate of $16 a lamp. Philip N. Jackson, Pres., Newark.

CUMBERLAND, MD.—Bids are asked until Aug. 3, for electric or gas street lighting, from Sept. 1. Walter B. Clark, Cy. Clk.——It is reported that this city is agitating the question of a municipal electric light plant.

PIEDMONT, W. VA.—The council is reported to have decided to investigate the cost of an electric light plant.

SISTERSVILLE, W. VA.—It is stated that this city wishes to grant an electric light franchise.

AMERICUS, GA.—We are informed that an electric light plant is under consideration. J. A. Huron, Mayor; Henry S. Davis, Clk. and Treas.

OCALA, FLA.—Bids are asked until Aug. 20, for constructing an electric light plant (postponement from July 20). Engrs., Royal Electric Co., Peoria, Ill.; R. G. Blake, Cy. Clk.

AMITE CITY, LA.—J. B. Ogle, C. E., writes us that the matter of an electric light plant is only being agitated, as also an ice plant, but nothing definite is in view.

CARTHAGE, O.—An election will be held Aug. 8 to vote on the question of issuing $25,000 in bonds for extending electric light plant and water-works, and for building a fire-alarm system.

EAST PALESTINE, O.—The town has voted to issue $10,000 in bonds for an electric light plant. John Archibald, Clk.

LAKEWOOD, O.—This place has voted to issue $20,000 in bonds for an electric light plant.

NEWARK, O.—Bids are asked until Aug. 21, for the purchase of one 50-light dynamo and the cost per mile for the construction of line and lamps complete for 50 additional lights. Jas. F. Irwin, Pres. Council; C. S. Brady, Cy. Clk.

DEXTER, MICH.—At a special election July 20 the village voted on issuing $8,000 in bonds for an electric light plant. The village is already bonded for $12,000.

SAULT STE. MARIE, MICH.—The Lake Superior Power Co. has petitioned the council for a franchise. It is proposed to construct a power canal from St. Mary's River through this city. Edward V. Douglas, of Philadelphia, Pa., and Francis H. Clergue, of New York, N. Y., are interested.

VICKSBURG, MICH.—Bids are asked until Aug. 10, for furnishing the necessary materials and machinery, and constructing a combined water-works and electric lighting plant; check, not less than 3% of amount of bid. Alvord & Shields, Engrs.; W. S. Monroe, Elec. Engr.; Fred. A. Robinson, Village Clk.

QUINCY, ILL.—The Des Moines Rapids Power Co. is said to be making arrangements for constructing a power plant to cost about $750,000, near the Keokuk Rapids, about 34 miles from this city. R. A. Campbell, Engr. and Supt.

MILWAUKEE, WIS.—The board of public works has advertised for bids to be opened July 31, for the purchase of a site for a municipal electric light plant in the Menominee Valley. The land must be about 280 x 275 ft.

MOUNT PLEASANT, IA.—Bids are asked until Aug. 1, according to report, for the construction of an electric plant. Address the light committee.

FOSSTON, MINN.—Bids are asked until Aug. 6 for constructing an electric light plant. I. O. Brandt, Village Recdr.

DEXTER, MO.—Isaac A. Smith, of Chester, Ill., has been engaged to prepare plans and specifications for an electric light plant and water-works, according to reports. Bonds have been voted and as soon as the plans have been completed the lights will be put in.

HEMPSTEAD, TEX.—The city has granted a franchise for electric lighting.

VAN ALSTYNE, TEX.—The electric light plant owned by McKinney & Man will be increased from 25 to 100 lights.

OGDEN, UTAH.—Bids are asked until Aug. 8 for the erection and completion of a power house for the Pioneer Electric Power Co. C. K. Bannister, Ch. Engr.

EUGENE, ORE.—Bids are asked until Aug. 20, for furnishing 20 arc lights, of 2,000-c. p. each, for three years. R. M. Day, Chn. Com. on Fire and Water.

SANTA ANA, CAL.—Edward Tedford, Cy. Clk., writes us that the proposition to issue bonds for an electric light plant did not carry.

MARYSVILLE, CAL.—A press report states that one object of the capitalists who have taken stock in the Marysville & Nevada Power & Water Co. is to construct a solid masonry wall 100 ft. high at Deer Creek Narrows in the Yuba River to furnish electric power to the mines in that vicinity, Browns Valley and other points, also to run machinery at Smartsville and Bonanza Ranch, where a canning plant will be constructed for next year's fruit crop. Lines will be run into this city and electric light and power will be sold to consumers. Supervisor Conrath is superintending the work now under way, a gang of men having commenced to run a drift in the bank at the narrows preparatory to taking out rock. W. W. Waggoner, a surveyor and one of the incorporators, is at the site of the proposed dam and making the survey and plans of the work, all of which indicates that the company means business.

MEXICO, MEX.—Bids are asked until Aug. 31 for the purchase of an electric light franchise for 600 arc and 150 incandescent lights, for eight years. Address the Mexican Consulate General, 35 Broadway, New York, N. Y., or Alex. K. Coney, Consul, San Francisco, Cal.

NEW COMPANIES.—Century Light & Power Co., Cleveland, O.; $10,000.

Phillipsburg Electric Lighting, Heating & Power Co., Phillipsburg, N. J.; $25,000; Jacob B. Smith, John H. Haggerty, E. D. Pursel, William H. Reaser, George Hubschmitt, John Ellerberg.

Egypt Electric Company, Cairo, Ill.; $40,000; William Kluge, Henry Hasenjaeger, Albert Lewis, C. V. Neff.

Century Power & Lighting Co., Cleveland, O.; $10,000; E. W. Smith, Albert Straus, Hiram Straus, A. B. Pinney, F. Barkoske.

English Electric Light Co., English, Ind.; $5,000; Pres., Joseph H. Finch; Vice-Pres. and Secy., William L. Gregory.

Stockton & San Francisco Electric Power Co., Fresno, Cal.; $5,000,000, commencing with $2,475,000; L. E. Walker, S. Wormser, F. Youngren, J. C. Sheppard, Chas. G. Bonner, all of Fresno.

Delta Electric Power Co., Delta, Pa.; $30,000; commencing with $3,000; Treas., Wilson Z. Macomber.

## BRIDGES

BOSTON, MASS.—The following bids were received July 21 for constructing masonry piers for the Charlestown bridge, as advertised in Engineering News; B. Leighton Beal, Secy. Boston Transit Comn.:

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| Pigeon Hill Granite Co., Rockport, Mass., and Hiram W. Phillips, Quincy, Mass. | $396,310 |
| Jones & Meehan, Jamaica Plain, Mass. | 375,000 |
| Rodgers, Farrell & Yates, 175 Amsterdam Ave., New York | 319,500 |
| Arthur McMullen & Co., 26 Cortlandt St., New York | 314,000 |
| Thos. Dwyer, 106 E. 116th St., New York | 313,000 |
| Trumbell, Ryan & Co., 209 Washington St., Boston | 300,000 |
| E. W. Everson, Providence, R. I. | 290,000 |
| Steward & McDermott, 717 Havemeyer Bldg., New York | 290,000 |
| R. A. Malone & Co., 16 Pemberton Square, Boston | 2 6 000 |
| Shaller & Schniglau Co., Western Union Bldg., Chicago | 256,000 |
| Rowe & Miller, 209 Washington St., Boston | 237,744 |
| *Perkins & White, 1 Beacon St., Boston | 230,591 |

*Awarded contract.

BARRE, MASS.—The reconstruction of the 70-ft. iron bridge, which was destroyed recently, is being considered.

BUFFALO, N. Y.—There is talk of constructing a steel roadway between Tonawanda and Niagara Falls to connect with the boulevard between Tonawanda and Buffalo. William B. Rankin, Secy. Niagara Falls Power Co., is interested.

HAGERSTOWN, MD.—A press report states that the Washington and Allegheny county commissioners have decided to build a new iron bridge across Sideling Hill Creek, which divides the counties, the cost of the bridge to be divided equally between the counties. The bridge is on the old National turnpike.

MARLBORO, MD.—Bids are asked until Aug. 4 for constructing two iron bridges in this county, according to reports. Thos. E. Williams, Clk.

STAUNTON, VA.—The board of county commissioners has appropriated $3,000 to be used in the construction of two iron bridges across streams in the county. Contracts have not yet been awarded.

CLARINGTON, W. VA.—The Ohio River R. R. bridge at this place has been destroyed by high water.

ATLANTA, GA.—Bids are asked until Aug. 17 for constructing a steel bridge at Port Hudson, La., national cemetery. Maj. John L. Clem, Q. M., Atlanta.

ABERDEEN, O.—Three bridges in Brown county have been washed from their piers.

BELLAIRE, O.—The Bellaire, Zanesville & Cincinnati R. R. Co. lost four bridges by the high water last week. J. K. Geddes, Gen. Mgr., Zanesville, O.

TOLEDO, O.—The Wheeling & Lake Erie Ry. Co. has decided to build another steel bridge over the Maumee River. Ch. Engr., W. J. Sherman, Toledo.

GALESBURG, MICH.—The abutments for a new bridge were recently so injured by high water that they will have to be rebuilt.

TECUMSEH, MICH.—Bids are asked by W. J. Ingersoll, Clk., Tecumseh, for constructing a bridge and two stone piers or a stone arch structure.

JOHNSON CREEK, WIS.—The Chicago & Northwestern Ry. bridge across Rock River, near here, was recently burned. Ch. Engr., John E. Blunt, Chicago.

MILWAUKEE, WIS.—Bids are asked by the park commissioners until Aug. 3 for constructing the masonry work of the four abutments for the bridges over the ravines at Lake Park, noted last week. Plans for the superstructures are being prepared by Oscar Sanne and will be ready late this fall or early next year.

MINNEAPOLIS, MINN.—The county commissioners have decided to accept the offer of the Great Northern Ry. to bridge its tracks at Lake St. The county is to build the approaches.

ST. PAUL, MINN.—Bid are asked unail Aug. 4 for painting and reflooring the Seventh St. bridge. John C. Mueller, Clk., Board of Public Works.

DES MOINES, IA.—The following bids were received July 18 for constructing a steel bridge across the Raccoon River:

| | |
|---|---|
| J. R. Sheeley & Co. | $25,200 |
| N. M. Stark & Co. | 26,570 |
| Fair, Williams & Co. | 26,555 |
| Wrought Iron Bridge Co. | 25,673 |
| George E. King Bridge Co. | 24,944 |
| King Bridge Co. | 25,041 |
| J. H. Kilmar | 19,100 |
| Wisconsin Bridge & Iron Co. | 26,140 |
| Chicago Bridge & Iron Co. | 25,000 |
| J. B. March | 25,295 |

| | Stone cut— At quarry. | In city. |
|---|---|---|
| J. H. Kilmar | $19,065 | $21,000 |
| J. B. Locke | 13,437 | 17,715 |

HILLSBORO, N. DAK.—Bids are asked until Aug. 3 for constructing seven county bridges, according to reports. Geo. O. Stornner, County Audr.

WARRENSBURG, MO.—The Pfieffer bridge, a wooden structure over 100 ft. long, has been destroyed by high water.

AUSTIN, TEX.—Bids are asked until Aug. 1 for erecting an iron bridge over Wilbarger Creek. D. A. McFall, County Judge.

LOS ANGELES, CAL.—A motion has been referred to the bridge committee to advertise for bids to construct a bridge across the Los Angeles River on the Los Feliz road.

REDDING, CAL.—Plans and specifications are being prepared by the county surveyor for two stringer bridges of 40-ft. span with concrete cylinder piers and iron caps. Bids are asked until Sept. 11 by the county clerk.

QUEBEC, QUE.—The city engineer has prepared plans for a bridge over the St. Charles River, according to reports.

## BUILDINGS.

WATERVILLE, ME.—Plans for a new city building, 156 × 72 ft., with a projection in the rear 38 × 68 ft., have been prepared by Geo. G. Adams, Lawrence, Mass., and adopted by the city; estimated cost, $75,000.

BOSTON MASS.—J. W. Bishop & Co., of Providence, R. I., have been awarded the contract for constructing a 7-story building at Columbus Ave. and Morgan St. for the Pope Mfg. Co. Archs., Peabody & Stearns, 53 State St., Boston.

CHELSEA, MASS.—The plans of Wilson Weber have been adopted for an 8-room school building.

LOWELL, MASS.—Bids are asked until Aug. 8 for the roofing and copper work of the addition to the court house in this city. Wait & Cutter, Archs., 85 State St., Boston; address the county commissioners, East Cambridge, Mass.

BROOKLYN, N. Y.—The Swedish Hospital has been incorporated to erect hospital buildings on Atlantic Ave. Work will be begun when $50,000 has been subscribed. Pres., Chas. E. Edley, 1,086 Pacific St.; directors: H. A. C. Dahl, Ernst Lundgren, Jacob Morin, of Atlantic Ave., and others. Arch., Magnus Dahlander, Arbuckle Bldg., Brooklyn.

BROOKLYN, N. Y.—Bids are asked until Aug. 4 for constructing addition and alterations to school building, etc. John McNamee, Chn. Com., 131 Livingston St.

NEW YORK, N. Y.—It is proposed to erect a 15-story office building on the site of the St. James' Hotel, at Broadway and 26th St.; estimated cost of building, $1,500,000. The property is held in trust for the benefit of the three sons and a daughter of the late Paul Spofford. The trustees are Everett P. Wheeler and Thomas Pearsall, the son-in-law of Mr. Spofford.——Plans have been filed by the board of education for a new 4-story school building on Union Ave., near 149th St., to cost $100,000.——Plans were filed July 25 for a hotel at 1372-82 Broadway, 107-21 West 37th St., and 114 West 38th St., to cost $2,000,000; The Hobart Estate Committee, of San Francisco, owner; Geo. E. Harding & Gooch, of 253 Broadway, Archs. The building will be 15 stories high, and of steel skeleton fireproof construction, with fronts of granite and brick and copings of terra cotta.——It is stated that McKim, Mead & White are working night and day to complete the plans for the new building to be put up by Isaac V. Brokaw for Louis Sherry, at Fifth Ave. and 44th St., opposite the projected Delmonico building. Both buildings will be completed at the earliest possible date.

ATLANTIC CITY, N. J.—Plans for the Hotel Kingsley have been completed by Louis Hickman, of Philadelphia.

BAYONNE, N. J.—The contract for constructing another school house in the Third Ward has been awarded to A. J. Dittmar, of Jersey City, at $44,888. The contract was first awarded to Joseph Swing, of Jersey City, at $37,500, and then to James Hannon, of Bayonne, at $44,573, but each in turn refused to accept the award.

FREELAND, PA.—The following bids were received July 20 for the erection of the new school building:

| | |
|---|---|
| T. B. Campbell, Pittston | $14,565 |
| Benjamin Rausch, Hazleton | 18,575 |
| James A. Griffiths, Freeland | 18,913 |
| A. S. Phillips, Wilkes Barre | 14,400 |
| Knelly & Frederick, Hazleton | 13,993 |
| Herman Riebe, Lansford (awarded contract) | 14,050 |
| Ben Lear & Son, Allentown | 15,709 |

GLEN CARBON, PA.—The following bids were received by Wm. Johnson, Secy. School Bd., on July 6 for constructing a school building, etc.:

| | |
|---|---|
| Jacob Kilgus, Pottsville, Pa | $180,000 |
| Adam Hinhel, Minersville, Pa. | 165,000 |
| [illegible]. J. Curding, Pottsville, Pa | 149,[illegible] |
| Thomas McKernan, Pottsville (awarded contract) | 139,200 |
| Charles L. Ossman, Minersville, Pa | 135,500 |

PHILADELPHIA, PA.—Geo. Watson & Son have been granted a permit for a 44 × 123-ft. residence to cost $175,000, to be built at 18th and Walnut Sts., for Mrs. John R. Fell; Peabody & Stearns, Archs., Boston.——Plans for the Barnot office building, at 113 South 10th St., have been revised by Baker & Dallett.——Wendell & Smith are reported as preparing plans for 50 houses, work on which will be begun in August.

PITTSBURG, PA.—A tract of 900 acres of land lying near Erie and Girard was purchased last week for the site of the new Masonic University. On the sub-committee having charge of the purchase were G. W. Morris and W. G. Foster, of Pittsburg.

WASHINGTON, D. C.—Bids are asked until Aug. 18 for erecting school buildings, steam heating and electric light plants, at the Pine Ridge Indian Agency, S. Dak., and at Rosebud Agency, S. Dak. D. M. Browning, Comr. Indian Affairs, Washington, D. C.

ANNAPOLIS, MD.—Bids are asked for an addition to the school building in South Baltimore, Md. H. Eugene Wathen, Secy. School Comrs., Annapolis.

BALTIMORE, MD.—The council has appropriated $20,000 for two new elevators for the city hall. B. B. Owens, Inspector of Bldgs.

BALTIMORE, MD.—The contract for the new southern police station has been awarded to Cornelius Sheehan & Son, at $29,560, to be completed Jan. 1, 1897.

GREENVILLE, GA.—Bids are asked until Aug. 13 for building a jail and sheriff's residence. H. P. Blalock, Clk.

CINCINNATI, O.—A. E. Siter, Third and Walnut Sts., is preparing plans for school buildings in South Cumminsville and Pendleton, to cost $63,000 each, and for an addition to the Columbian School in Avondale, to cost $50,000.

SALEM, O.—The board of education has awarded the contracts for building two new school buildings to W. C. Wilkins, of Pittsburg, at $55,500. There were six bidders, the highest being $73,400.

TIFFIN, O.—Cuthbert & Stewart, of Tiffin, have been awarded the contract for constructing buildings for the National Mechanics' Home. Archs., Chas. Ernst & Co., Tiffin.

SOUTH BEND, IND.—Bids are asked until Aug. 14 for constructing a post office building in this city. Wm Martin Aiken, Supervising Arch., Washington, D. C.

CHEROKEE, IA.—Bids are asked until Oct. 6 for constructing the hospital for the insane at Cherokee. Archs., Josselyn & Taylor Co., Cedar Rapids, Ia.; Jed Lake, Pres.; Wm. G. Kent, Secy., Cherokee; E. H. Conger, Treas., Des Moines, Ia.

FOREST CITY, IA.—The contract for a new court house was awarded July 22 to H. A. Gross, of La Crosse, Wis., at $20,496. There were 14 other bids. The new structure will have an 85-ft. tower.

JEFFERSON BARRACKS, MO.—Bids are asked until Aug. 25 for the construction of a double barrack and two double sets of officers' quarters; also for plumbing, heating and gas piping. Capt. S. R. Jones, A. Q. M.

KANSAS CITY, MO.—The mayor has signed the ordinance authorizing the Chicago Great Western Ry. Co. to build a grain elevator of 1,000,000 bushels capacity.

GRANT'S PASS, ORE.—Plans and specifications together with bids will be received by the county court on Aug. 18 for the enlargement and improvement of the Clerk's office. Three plans might be submitted: Put on wing two stories high to correspond with present building and extend the vault to the full length of the addition; same as first, with exception of making it one-story high with heavy joist on top sufficient to receive floor in case change is made in future; to remove vault outside of present building, and construct a larger one on the outside and finish up the space now occupied by same for clerk's work. J. M. Chiles, County Judge.

AUBURN, CAL.—Bids are asked by the board of supervisors until Sept. 22, for the construction of the fourth section of the new court house, jail and hall of records in this city, in accordance with plans and specifications on file with the county clerk. S. Mariner, Chn.

SAN FRANCISCO, CAL.—Bids are asked until Aug. 21 by the Board of Regents of the University of California for the erection of the Affiliated College buildings to be erected in San Francisco. Plans and specifications may be seen at the office of the undersigned, also at the office of J. E. Krafft and Martins & Coffey, Architect, 819, Market St.; J. H. C. Bonte, Secy., South Hall, Berkeley.

SAN JOSE, CAL.—Jacob Lenzen & Son, 75 St. Clara St., San Jose, have prepared plans for additional buildings at the infirmary and almshouse.

## WATER-WORKS.

ISLAND POND, VT.—A public meeting was held July 18 to consider putting in works, for which surveys have just been made.

BILLERICA, MASS.—It is thought that the committee appointed to consider introducing works will report favorably. J. Nelson Parker and F. S. Clark are interested.

IPSWICH, MASS.—A town meeting was held July 17 to consider issuing water bonds to the amount of $6,000

LAWRENCE, MASS.—We are informed that the following bids were received for constructing the new high-service stand-pipe:

For Steel Pipe:

| | |
|---|---|
| William J. Walsh, Holyoke | $11,987 |
| Tippett & Wood, Phillipsburg, N. J. | 11,550 |
| R. D. Wood & Co., Philadelphia | 11,170 |
| Cunningham Iron Co., Boston | 13,598 |
| Ritter & Conley, Pittsburg | 11,860 |
| E. Hodge & Co., East Boston (awarded contract) | 11,161 |

For Wood and Masonry Work:

| | |
|---|---|
| James Dorman, Lawrence | 27,000 |
| Peabody & Pike, Lawrence | 28,230 |
| G. M. Cole & Co., Lawrence (awarded contract) | 21,714 |
| Driscoll & O'Brien, Lawrence | 23,304 |

PITTSFIELD, MASS.—A press report states that estimates have been received by the board of public works for constructing the lower Ashley distributing reservoir ranging from $25,000 to $57,000 for a dam 10 ft. higher than the present one, with a capacity of 16,000,000 gallons.

STRATFORD, CONN.—The Village Improvement Society is discussing the subject of works. F. C. Beach, Pres.

DANSVILLE, N. Y.—At a special election July 22, the town voted to introduce a gravity system, to cost about $60,000; about 14 miles of 12 to 6-in. pipe will be required; also reservoir. J. F. Witmer, Engr., Buffalo; Frank J. Blum, Secy. Bd.

ELMIRA, N. Y.—A company has been organized to construct works to cost about $40,000, to supply Elmira Heights. W. W. Cole, Supt.

JEFFERSONVILLE, N. Y.—A press report states that works will be built; water supply from a spring near the village.

LE ROY, N. Y.—Bids are asked until Aug. 15 for constructing works, as described in our advertising columns. Potter & Folwell, Engrs., New York; O. F. Woodward, Pres. Comrs.

MONTOUR FALLS, N. Y.—Works are to be built, according to a press report.

PHELPS, N. Y.—Bids are asked until Aug. 11 by the water commissioners for constructing works (postponement of date).——The commissioners have closed a contract with Bassett Bros., Buffalo, N. Y., for the purchase of the present system for $10,000, and this is to be extended and rebuilt, according to reports.

SKANEATELES, N. Y.—Bids are asked until Aug. 13 for constructing works, as stated in our advertising columns. W. B. De Witt, Clk.

WASHINGTONVILLE, N. Y.—Bids are asked until Aug. 1 for the purchase of $27,000 in water bonds. Chas. Nicoll, Pres. Comrs.; Wm. R. Brooks, Secy.

WEST TROY, N. Y.—The contract for building the new dam is said to have been awarded. C. E. Burlingame, Engr.; W. F. Ross, Secy.

DECKERSTOWN, N. J.—The contract for the construction of the new water-works has been awarded to W. T. O'Connor & Co., Syracuse, N. Y., at $17,384, work to be completed in 75 days. The awarding of contracts for materials was noted in our issue of July 16.

ROCKAWAY, N. J.—At a special election July 21, the borough voted to issue bonds for $25,000 for a new water supply.

VAILSBURG, N. J.—At a special election July 21, it was decided not to issue bonds for water-works.

CARLISLE, PA.—The Carlisle Gas & Water Co. is reported to have decided to contract for a filter plant.

HOMESTEAD, PA.—This borough contemplates an additional reservoir, filtration of the water supply and a new delivery main. P. F. Hanley, Chn. Com.

MALVERN, PA.—The contract for constructing works, as advertised in Engineering News, has been awarded to W. S. Wagner, Auburndale, Mass., at $3,528, and standpipe purchased of Bossart & Bros., Pottstown, at $2,000. There were 29 bids received. Horatio Sands, Engr., Pottstown; Geo. R. Walton, Secy. Com.

OIL CITY, PA.—This city proposes to secure a filtered water supply and it is reported that bids are now being received for sinking driven wells on river bank. A. M. Breckinridge, Secy. Bd.

SHARPSVILLE, PA.—At a council meeting July 22, it was decided to issue bonds to the amount of 2%, amounting to about $15,000, and to hold a special election Aug. 22 to vote on an additional 2% tax for works, as noted in our issue of July 16. T. M. Ford, Clk.

VANDEGRIFT, PA.—A press report states that Chandley Bros., of Beaver Falls, have been awarded the contract for building the new water-works as well as the contract for piping the streets for both gas and water at this place.

ROCKVILLE, MD.—The contract for sinking an artesian well has been awarded to the Miller Artesian Well Co., Baltimore.

ONANCOCK, VA.—The town council is reported to have decided to issue bonds for $5,000 for the construction of works.

KINSTON, N. C.—A press report states that the construction of works is under consideration.

TARBORO, N. C.—The contract for constructing works has been let to W. N. Smith and R. S. Neal; supply from artesian wells now being sunk. J. A. Weddell, Clk.

OPELOUSAS, LA.—Bids are asked until Aug. 20, for constructing works. C. J. Thompson, Mayor.

HALLS, TENN.—A press report states that Hall & Stephens may construct works.

CARTHAGE, O.—An election will be held Aug. 8, to vote on an isue of $25,000 in bonds for the extension of the water-works and electric light plant.

CHAGRIN FALLS, O.—The council will submit the question of bonding the town for $35,000 to put in a system.

GIBSONBURG, O.—It is stated that bonds for works will be sold Aug. 17. F. A. Herman, Clk.

HIRAM, O.—An election will soon be held to authorize the issuing of additional bonds for $4,000 for works.

NORWALK, O.—Bids are asked until Aug. 6 for constructing two dams and reservoirs, wells, etc., as stated in our advertising columns. L. E. Chapin, Engr., Canton, O.; A. F. Rowland, Secy. and Supt.

QUINCY, O.—The council is reported to have granted a franchise to L. M. Hoover, of Indianapolis, Ind., to build a system of water-works.

HOLLAND, MICH.—The question of enlarging the present plant is under consideration by the council.

VICKSBURG, MICH.—Bids are asked until Aug. 10 for furnishing materials and constructing a water-works and electric light plant; check, 3% of amount of proposal. Alvord & Shields, Engrs.; W. S. Monroe, Elec. Engr.; Fred. A. Robinson, Village Clk.

YPSILANTI, MICH.—This city is about to lay 3,000 ft. of 4-in. extension. Geo. A. Cook, Secy. Bd.

EVANSTON, ILL.—Bids were asked until July 28 for laying water mains in two streets. Mark Wymond, Comr. Pub. Wks.

CHICAGO, ILL.—The city engineer has been ordered to prepare plans and specifications for three new 12,000,000-gallon pumping engines and necessary boilers.

ROGERS PARK, ILL.—The Rogers Park Water Co. will extend its mains about one mile this year. H. E. Keeler, Pres. and Supt., 3660 Sheridan Drive, Chicago.

SHELDON, ILL.—M. B. Wood, Clk., writes us that tests of the three wells to supply the town with water, show the first to be a failure, the second supplies about 20 gallons per minute, and the third, 1,200 ft. deep, is not yet tested.

STEVENS POINT, WIS.—The Stevens Point Water Co. is considering a new source of supply from springs. W. O. Lamoreux, Supt.

DES MOINES, IA.—E. W. Crellin, the special engineer employed by the city council to report on the condition of the city water-works, has reported that the present plant can be duplicated for about $500,000.

HENDERSON, IA.—We are informed that the contract for an artesian well has been awarded to S. Swanson of Minneapolis, Minn. If the well proves a success water-works will be built.

JEFFERSON, IA.—Plans for the reorganization of the water-works pumping plant are being discussed. E. W. Crellin, Engr., Des Moines.

KEOSAUQUA, IA.—Jas. P. Starr, Cy. Recdr., writes us that 20 or 30 bids were received in response to the recent advertisement in Engineering News, and that 75 copies of the specifications were sent out. The contract was awarded to Park & Wilkin, Burlington, at $8,752 for a modified plan. The bids received for the complete plant were as follows: Chas. F. Sturtevant, Engr., St. Louis, Mo.:

| | |
|---|---|
| Western Engineering Co., Ottumwa, | $13,262 |
| Park & Wilkin, Burlington | 12,576 |
| Jackson & Moss, Des Moines | 14,609 |
| Seckner Contracting Co., Chicago | 14,771 |
| Egar & Mumm, Nebraska City, Neb. | 12,200 |

WYOMING, IA.—C. S. Benson, who proposes to construct works, writes us that the town will lay the mains with the $3,000 recently voted, and that he will construct the branches for private service, with a reservoir and gasoline engine for pumping; it is not known when the contract for laying mains will be let. E. M. Babcock, Mayor.

FOSSTON, MINN.—Bids are asked until Aug. 6 for constructing works. C. F. Loweth, Engr., St. Paul; I. O. Brandt, Recdr.

MISSOULA, MONT.—T. T. McLeod, Mgr., is quoted as saying that the improvements and extensions noted last week will be made this fall; they include new 6-in. mains and a new filter and other improvements at the reservoirs, including a new flume or other means of bringing the water from the headgate.

DEXTER, MO.—Isaac A. Smith, Chester, Ill., has been engaged by the city council to prepare plans for a system of water-works. Bonds for $10,000 have been voted and work will begin as soon as the plans are completed.

HOLDEN, MO.—The town has voted $12,000 in bonds for the construction of works. T. J. Haley, Mayor.

WHITNEY, TEX.—The Whitney Water & Light Co. has been organized with a capital stock of $5,000, and has begun to sink an artesian well. A. G. McMahan may be addressed.

GOLDFIELD, COLO.—E. C. Dusell, Cy. Clk., writes us that a proposition has been received from J. E. Hurd to build works, but no definite action has been taken in the matter, although the proposition is being favorably considered.

IDAHO SPRINGS, COLO.—This city is making some extensions of the water mains and is working to increase and purify the supply.

RAINIER, WASH.—It is reported that Capt. Newsome will put in a system of water-works. H. Orchard, of Kalama, has the contract.

DELANO, CAL.—C. A. Weaver is preparing plans for sinking an artesian well and erecting a pump to be run by a gasoline engine to pump the water into a brick reservoir 125 ft. in diameter and 5 ft. deep.

POMONA, CAL.—The Consolidated Water Co. has been incorporated; capital stock, $500,000; directors: A. C. Moorehead, Ontario; G. A. Lathrop, Pomona; I. Springer, Pasadena; J. A. Young, Los Angeles, and G. N. Nolan, of Los Angeles. It is stated that the company will purchase the plants of the Pomona City Water-Works Co., the Citizens Water Co., and the plant of Fleming & Beckett, the total cost of which will be about $175,500.

SAN DIEGO, CAL.—We noted July 9 and 16 that this city has voted $1,500,000 in bonds for a new water system to be constructed by the Southern California Water Co., E. S. Babcock, Pres.; Harris & Russell, Engrs. The legality of the bond issue has been attacked in the courts and we are informed that it is not probable that very much construction will be commenced until the bond issue is confirmed by the courts. The plans include an impounding dam of loose rock with an asphalt face, on Cottonwood Creek at the Morena dam site, 3,100 ft. above sea level, and 50 miles from San Diego, with a conduit of natural creeks, cement lined ditch, wooden stave and steel riveted pipe, capacity 20 cu. ft. per sec. In addition to a complete new distribution system throughout the city, a daily capacity of 1,728,000 cu. ft. of water will be obtained for irrigating land near the city. John D. Spreckles, owner of the Coronado Hotel, and A. B. Spreckles, owner of the San Diego electric railways, are said to be behind the new water company. The projected work will cost about $3,000,000. E. E. Capps is city engineer.

SUISUN, CAL.—Bids are asked until Aug. 1 for the purchase of $42,000 in 6% water bonds. O. B. Powers, Town Clk.

FLAGSTAFF, ARIZ.—The city council has employed J. W. Vanderworker to make a survey for the proposed pipe line from the Jack Smith spring to Flagstaff, including the mains within the town, and make an estimate on the cost of putting in water-works. Mr. Vanderworker expects to have the report ready inside of 30 days.

BROCKVILLE, ONT.—The city contemplates the purchase of a new pump, construction of a new well and possibly repairs to the intake pipe; no definite action yet taken. Dr. V. H. Moore, Mayor; R. Picken, Supt.

## SEWERAGE.

NASHUA, N. H.—The city engineer has been directed to investigate the results to the sewer system if the plans of the Metropolitan water board are carried out. It is stated that 17 sewers now empty into the Nashua River and two large trunk sewers will be required to take the sewage from these.

BELCHERTOWN, MASS.—The following bids were received July 25 for building 1,000 ft. of sewers in South Belchertown.

| | |
|---|---|
| Geo. N. Vaughan, Springfield, Mass. | $1,075.00 |
| N. A. Shaw, Springfield, Mass. | 735 50 |
| Bramble & Blodgett, Ludlow, Mass. | 606.20 |
| John Kelly, Northampton, Mass. | 843.00 |
| J. D. Potter & Co., Bondsville, Mass. | 544.67 |
| Thomas O'Connor, Bondsville, Mass. | 539.67 |
| Wm. Olando, Belchertown, Mass. | 529.67 |

BEVERLY, MASS.—Bids are asked until Aug. 5 for furnishing 24,000 sewer brick, 140 bbls. of cement, about 2,700 ft. of 15 to 5-in. sewer pipe, etc., and for constructing nearly a mile of pipe sewers. Ernest W. Bowditch, Engr., 60 Devonshire St., Boston, Mass.; Wm. H. Twohig, Israel F. Lee and Wm. Stafford, Com.

WATERTOWN, MASS.—Bids were asked until July 27 for furnishing 15,400 ft. of 18 to 6-in. sewer pipe, 250,000 brick, 900 bbls. of cement, etc. Henry O. Peckham, Engr.; H. H. Sawyer, Chn. Com.

WESTFIELD, MASS.—State Engineer McClintock, of Boston, is reported as preparing plans for a $75,000 drainage system at this place.

HARTFORD, CONN.—The city surveyor has been directed to make a survey for a 36-in. brick trunk sewer in West Hartford.

ALBANY, N. Y.—Bids are asked until Aug. 3 for constructing two pipe sewers. Thos. J. Lanahan, Clk. Bd.

BUFFALO, N. Y.—The committee has reported on the proposed sewer in Ferry St., 24th Ward, to cost $32,000. Dr. Geo. L. Brown, Chn. Com.

DEPEW, N. Y.—The plans of Guthrie & Rockwood, Engrs., of Buffalo, for a $300,000 sewer system for this village have been approved by the state board of health. A meeting of taxpayers will be called to vote on the improvement.

ROCHESTER, N. Y.—Bids are asked until Aug. 3 for constructing the Frost Ave. pipe sewer. Thos. J. Neville, Clk. Executive Bd.

ROSELLE, N. J.—H. M. Herbert, Bound Brook, N. J., has been engaged to prepare plans for a system in the western part of the city.

ALTOONA, PA.—Bids are asked until Aug. 7 for constructing a sewage disposal plant near Creswell Station, four miles south of the city. The area of the proposed bed is about 67 acres. There will be 7,669 ft. of 18 to 10-in. pipe sewers, 37 gate and siphon chambers, one screen tank, 320 ft. of 16 and 10-in. iron siphon, etc. John Currie, Chn. Com.

MANOR STATION, PA.—Bids are asked until Aug. 3 for constructing a sewer system about 9,000 ft. in length. H. F. Steiner, Chn. Com.

KNOXVILLE, PA.—Bids are asked until Aug. 4 for constructing a sewer; plans at office of Patterson & Jones, 93 Fourth Ave. I. A. Tomes, Borough Engr.

PITTSBURG, PA.—Bids are asked until July 31 for constructing sewers in about 24 streets. E. M. Bigelow, Dir. Pub. Wks.

SOUTH BETHLEHEM, PA.—An ordinance has been introduced in the council authorizing an election to vote on the question of issuing $100,000 in bonds for a sewer system.

WASHINGTON, D. C.—Bids are asked by the district commissioners until Aug. 15 for furnishing sewer materials, as stated in our advertising columns.

BUCYRUS, O.—The city engineer has been directed to prepare estimates for improving main sewer No. 1.

GENESEO, ILL.—Wm. B. Ewing, 1548 Marquette Bldg., Chicago, Ill., has been engaged by the council to prepare plans for a sewer system.

LA SALLE, ILL.—Contracts have been awarded as follows: P. M. Hugh, at $599, $481 and $356; Dennis Collins & Co., $2,000; John Salmon, a rock culvert, at $192. A. C. Finkler, Cy. Clk.

SYMERTON, ILL.—This town contemplates the laying of eight miles of 18 to 4-in. tiling, and wants information in regard to land drainage. F. R. Sanford, Town Clk.

DULUTH, MINN.—Bids are asked until July 31 for constructing a sewer in Jefferson St. M. J. Davis, Pres., R. Murchison, Clk. Bd. Pub. Wks.

KANSAS CITY, MO.—Bids are asked by the city engineer until Aug. 5 for constructing 6,770 ft. of the Gooseneck Creek sewer, 18-in., appropriation $6,000; and brick and pipe sewers in several districts, including 37 manholes, 1,500 cu. yds. rock excavation, etc.

SPOKANE, WASH.—The following bids were received July 18 for constructing sewers in Cannon's addition: Costello & Wells, $7,505 and $7,241; C. McKinzie, $7,799; J. C. Broad, $8,698.60 and $8,377; Porter Bros., $9,200.

PLACERVILLE, CAL.—A meeting of property owners on the south side of Main St. has been held to discuss ways and means to provide sewers for that district.

SACRAMENTO, CAL.—An election will be held Aug. 11 to vote on an issue of $65,000 in bonds for sewerage and drainage. M. J. Desmond, Cy. Clk.

## GARBAGE DISPOSAL—STREET CLEANING.

NEW YORK, N. Y.—The New York Sanitary Utilization Co., which has the contract for the final disposition of garbage in this city, as noted June 4, has awarded the contract for the construction of its plant on Barren Island to Armstrong & Printzenhoff, 136 South Fourth St., Philadelphia. Chas. Edgerton, Arch., Drexel Bldg., Philadelphia.

SYRACUSE, N. Y.—Cornelius D. McGlehan, brother of I. S. McGlehan, whose agreement with the city has just expired, has made a proposition to the city which is said to call for the construction of a garbage disposal plant of three times the size of the present one.

READING, PA.—A press report states that the mayor has signed the bill appropriating $10,000 for a garbage crematory, and that a plant of five tons daily capacity will be erected.

JACKSONVILLE, FLA.—The board of public works has decided to recommend an appropriation of $12,000 to $15,000 for a new garbage crematory.

## STREETS AND ROADS.

BOSTON, MASS.—The state highway commission is planning work for 1896 for which $600,000 was appropriated by the last legislature. Chn., T. C. Mendenhall, Pres. Worcester Polytechnic Institute.——The street department proposes to pave portions of three streets of Dorchester at a cost of about $45,000.——The following bids were received for building a telford and macadam road on Huntington Ave., from Gainsboro St. through Longwood Ave.: H. Gore & Co. (awarded contract), $23,320; Jones & Meehan, $29,985; Doherty & Connors, $28,930; J. T. Gilligan, $28,435; T. O'Leary, $27,906; W. Scollans, $26,279; D. F. O'Connell & Co., $25,729; J. Grand & Co., $23,711.

SPRINGFIELD, MASS.—The supervisors have decided to pave South Main St. with brick, which will require the balance of the $158,500 appropriation and will be the last paving this season.

CROMWELL, CONN.—The following bids were received by the selectmen, July 23, for telfording a section of the road from Cromwell to Middletown, southward from the southerly end of the section telfordized last year: A. Brazos & Sons, Middletown, $1.69 per lin. ft.; B. D. Price, Jr., Co., Bridgeport, $1.56; Hennesy & McDonald, Middletown, $1.53; Michael Mason, Branford, $1.49½; Robert Fenton, Willimantic, $1.45; Fish & Haye, Newington, $1.43; A. N. Pierson, Cromwell (awarded contract), $1.25.

GREENWICH, CONN.—Bids are asked by the selectmen until Aug. 6 for constructing a telford pavement in the New York & Boston Post Road. S. E. Minor, Engr., Trust Co. Bldg., Greenwich; N. A. Knapp, First Selectman.

NEW BRITAIN, CONN.—The committee is considering plans for paving about 4,000 sq. yds. in Main and Church Sts.

ALBANY, N. Y.—Bids are asked until Aug. 3 for paving St. Ann's Place, from Fourth Ave. to north end of street, with repressed vitrified brick. Thos. G. Lanahan, Clk. Bd. of Contract.

BINGHAMTON, N. Y.—A committee of city officials has been examining the brick pavements in Dunkirk and other places. Wm. Mason, Pres.

BROOKLYN, N. Y.—Bids are asked until Aug. 6 for repairing portions of three streets with asphalt; sureties, $21,000, $2,500 and $3,000. Theo. B. Willis, Comr. Cy. Wks.

BUFFALO, N. Y.—The lowest bids received July 21 were as follows: Preston St., asphalt, Michael Newell, $7,834; brick, P. B. McNaughton, $5,998. Winslow Ave., asphalt, Michael Newell, $2,264; brick, P. B. McNaughton, $1,737. Tenth St., asphalt, Barber Asphalt Paving Co., $2,205; brick, P. B. McNaughton, $2,379. East Parade Place, asphalt, Michael Newell, $1,288; brick, Standard Paving Co., $1,199.

BUFFALO, N. Y.—The board of public works will be directed by the council to prepare plans and specifications and advertise for bids for paving with asphalt Pearl St., between the Terrace and Tupper St.

NEW YORK, N. Y.—Bids are asked until Aug. 8 for paving Fifth Ave., from 9th to 59th St., with asphalt. Chas. H. T. Collis, Com. Pub. Wks.

NEW YORK, N. Y.—Bids are asked until Aug. 14 for paving Webster Ave. with brick; also for regulating, grading, asphalt paving, etc., in seven streets. Louis F. Haffen, Comr., 2622 Third Ave.

PATCHOGUE, N. Y.—The trustees have appointed a committee to investigate the question of macadam paving in a number of streets.

ROCHESTER, N. Y.—Bids are asked until Aug. 3 for constructing the Exchange St. pavement. Thos. J. Neville, Clk. Bd.

ROSLYN, N. Y.—Bids are asked by the board of town officers of North Hempstead for the purchase of $56,000 of 4% highway bonds, and it is stated that bids will soon be asked by the same officials for constructing macadam roads between Port Washington and Manhasset, Roslyn and Old Westbury and Mineola and the Jericho turnpike.

JERSEY CITY, N. J.—Bids are asked until Aug. 4 for paving in several streets with Belgian blocks. Geo. T. Bouton, Clk. Comrs.

ROSELLE, N. J.—H. M. Herbert, of Bound Brook, N. J., is making surveys, etc., for establishing street grades and also for paving Chestnut St.

TRENTON, N. J.—The board of freeholders has decided to macadamize Pennington Ave., from Trenton to Pennington. Address Geo. Holcombe, Thos. H. Thropp or John B. Fell, Trenton.

DU BOIS, PA.—Efforts are being made to secure the paving of 2,760 lin. ft. in North Brady St. and West Long Ave.; Mr. Du Bois is said to have offered to contribute $3,500 toward the work.

ERIE, PA.—Bids are asked until Aug. 6 for brick paving in Sixth St., as stated in our advertising columns. George Platt, Cy. Engr.

PHILADELPHIA, PA.—Plans have been prepared by Chief Engineer Thayer for improvements at the Diamond St. entrance to Fairmount Park, estimated to cost $10,356; work includes an asphalt walk.

PITSBURG, PA.—Bids are asked until July 31 for macadamizing and paving in about 12 streets. E. M. Bigelow, Dir. Pub. Wks.

READING, PA.—The select council voted 12 for brick and 3 for asphalt on the question of material for paving Penn St., to cost about $100,000.

CUMBERLAND, MD.—Bids are asked until Aug. 3 for furnishing brick and other street supplies. Walter B. Clark, Cy. Clk.

BERKLEY, VA.—This town, across the river from Norfolk, has appointed a committee to arrange for the macadamizing of the streets.

CHARLESTON, S. C.—Bids are asked until Aug. 12 for furnishing street supplies, according to reports. T. A. Huguenin, Supt. of Streets.

MACON, GA.—This city will soon advertise for the purchase of $180,000 in bonds, $130,000 of which will be for paving. This amount is said not to include the total to be spent, but only the city's portion, the total cost to be about $500,000. It is reported that bids will soon be asked for the paving, as the work is expected to be begun by October.

MONTICELLO, IND.—Bids are asked until Aug. 12 for the construction of 12½ miles of macadam roads, estimated to cost $22,430. Web. P. Bushnell, Engr.; M. J. Holtzman, County Audr.

GALESBURG, ILL.—Bids are asked until Aug. 3 for about one mile of brick paving. A. W. Truedson, Cy. Clk.

JOLIET, ILL.—Bids are asked until Aug. 3 for paving in Richards St., about 5,000 cu. yds. excavation, 5,000 lin. ft. new 4-in. curb, 12,890 sq. yds. macadamizing, 2,200 sq. yds. brick gutters, 24 catch basins, etc. Geo. W. Brown, Cy. Engr.

LA GRANGE, ILL.—Bids are asked until Aug. 3 for paving Bell Ave. with brick, with stone curb. W. B. Ewing, Engr.

LINCOLN, ILL.—Bids are asked until Aug. 3 for paving portions of two streets. Frank Bollin, Cy. Clk.

MONMOUTH, ILL.—Bids are asked by the road commissioners until Aug. 7 for 3,700 sq. yds. of combination single course brick pavement and macadam for a public highway. J. E. Miller, County Surv.

NORMAL, ILL.—The council is reported to have voted to construct about four miles of new brick sidewalk.

KEOKUK, IA.—Bids are asked until Aug. 1 for 4,000 sq. yds. of macadamizing. G. M. Walker, Cy. Engr.

PHOENIX, ARIZ.—The "Republican" states that the project of a wagon road connecting the Salt River Valley directly with Globe is being discussed. Only 16 miles of new road would have to be constructed, existing roads being struck at Bloody Tanks, 9 miles this side of Globe. At Pinto Creek a natural grade is found leading down into Tonto Basin, striking Salt River at Shute's ranch or thereabouts, convenient to the box canyon, where work is soon to be commenced on the construction of the great storage reservoir.

## MANUFACTURING PLANTS.

SOUTH PORTLAND, ME.—The bicycle factory owned by the John P. Lovell Arms Co. is to be enlarged by the construction of an addition, 100 × 53 ft., two stories in height, the contract for which has already been let.

BRISTOL, CONN.—The New Departure Bell Co. is preparing designs for three new buildings to be added to its plant. It is already building a large foundry. A building 212 × 40 ft., three stories in height, will also be constructed. An engine-room will be built as soon as possible and also another structure to be used for sand-blasts and japanning rooms.

HARTFORD, CONN.—The Pope Mfg. Co. is breaking ground for another factory building. It will be 75 × 252 ft., three stories high.

WOONSOCKET, R. I.—A press report states that the Guerin Spinning Co., yarn manufacturers, have awarded a contract for a one-story brick mill, 129 × 133 ft. The old mill is being remodelled.

BROOKLYN, N. Y.—The Mollenhauer Sugar Refining Co. is reported about to enlarge its plant.

MIDDLE FALLS, N. Y.—It is reported that the Bennington Falls Pulp Co. is preparing to rebuild the mill burned last year.

NEW YORK, N. Y.—John J. Amory, Pres. and Mgr. Gas Engine & Power Co., Morris Heights, is quoted as saying that the company intends to erect a machine shop, 250 × 75 ft. The building will be of steel, and the company is now building the boiler and engine needed.

OGDENSBURG, N. Y.—The building of the J. McCarthy & Sons Brewing Co., on the Canadian side, has been damaged by fire; estimated loss, $35,000. The plant is valued at $750,000.

ELIZABETH, N. J.—The Elizabeth Copper Works intends to enlarge its plant so that it will cover an entire block and employ 300 men.

ALLEGHENY, PA.—The Schoen Pressed Steel Co. is making improvements on its plant at Woods Run, Allegheny, costing nearly $250,000.

ALTOONA, PA.—Extensive additions are reported as to be made to the shops of the Pennsylvania Ry. New buildings are to be erected and improvements made in existing structures.

DANVILLE, PA.—T. O. Hartman is said to intend erecting a silk mill to cost $100,000.

DU BOIS, PA.—The Buffalo, Rochester & Pittsburg Ry. Co. is erecting new car shops. The plant will consist of an erecting shop, 60 × 110 ft.; woodworking shop, 60 × 125 ft.; stationary engine-house, 40 × 50 ft.; blacksmith shop, 40 × 80 ft.; storehouse, 24 × 96 ft.; oil-house, 20 × 50 ft.; seasoned lumber shed, 20 × 50 ft. Approximate capacity of the power plant, 100 HP.

GLEN RIDDLE, PA.—Messrs. Riddle have awarded the contract for the removal of the walls and debris of their mill building destroyed by fire about two months ago, preparatory to rebuilding.

HAZELTON, PA.—The Hazelton Mfg. Co. is erecting a planing mill.

SHARON, PA.—The Lloyd-Booth Co., of Youngstown, O., is reported to have been awarded the contract for the new steel plant to be erected here by a company of which F. H. Buhl is president. Contracts for supplying the machinery will be awarded upon completion of the plans.

LYNCHBURG, VA.—J. M. B. Lewis has been selected as the architect for the new plow factory to be erected in this place. Four buildings, 100 × 50 ft., will be erected in addition to a number of smaller outbuildings, all of which will be fireproof.

LAUREL HILL, N. C.—The Springfield Cotton Mill at this place will largely increase the size of its plant. Mark Morgan, Pres.

GREERS, S. C.—D. D. Davenport is stated to be erecting a cottonseed oil mill, 32 × 103 ft., with engine and boiler room, 30 × 40 ft.

McCALLS, S. C.—A $50,000 addition is to be added to the building and equipment of the McCall Mfg. Co., of this place.

ORANGEBURG, S. C.—The citizens have voted to exempt from taxation for five years a cotton factory if built, and work on the same will begin at an early day by the Enterprise Cotton Mfg. Co.

ALBANY, GA.—It is stated that R. E. Johnson, of Montezuma, Ga., will erect a saw mill near here to employ 80 men.

BARNESVILLE, GA.—A new underwear knitting company, with capital of $100,000, employing 40 operatives, will begin operations by Sept. 1. The capacity will be 100 dozen suits a day.

HIGH SHOALS, GA.—The High Shoals Mfg. Co. will at once erect another cotton mill of the same size as the one now in use, according to a press report. A 200 HP. engine and a 250 HP. boiler has been purchased.

MACON, GA.—The Manchester Cotton Mfg. Co. is reported to have decided to double the capacity of its mill at this place; 6,000 new spindles will be added. J. D. Hough, Gen. Mgr.

TAMPA, FLA.—The Tampa Tile & Paving Co. will probably erect a factory here to manufacture artificial stone. The capital stock of the company is $50,000. Myron E. Gillett, J. F. St. John and E. H. Gunby are interested.

ANNISTON, ALA.—It is stated that several officers of the Russell Mfg. Co., of Middletown, Conn., have been investigating in this place with a view to locating branch cotton mills. E. K. Hubbard, Pres.; J. Beattie, Supt.

MONTGOMERY, ALA.—The directors of the People's cotton factory have let the contract for a factory building to Cook & Laurie; contract price, $39,000.

CHATTANOOGA, TENN.—The Casey-Hedges Mfg. Co. has begun work on a new foundry building which will be erected as an addition to its present plant in South Chattanooga. Mr. Casey, Pres., is at present in Philadelphia selecting machinery and appliances for the same.

BROOKHAVEN, MISS.—W. H. Seavey is quoted as saying that he will erect an ice plant in connection with his canning factory. The new building will be 45 × 50 ft. and the plant of five tons capacity. He will require a complete plant except boiler.

BRIDGEPORT, O.—It is stated that plans are being prepared for the erection of three 30-ton open-hearth steel furnaces for the Aetna-Standard Iron & Steel Co. They are expected to be in operation before the close of the present year.

HUBBARD, O.—The Andrews & Hitchcock Iron Co. is now erecting a large engine-house preparatory for the reception of two blast engines now being shipped by William Todd & Co. These engines weigh 120 tons each and are intended to create a pressure of 18 lbs. to the square inch.

INDIANAPOLIS, IND.—The Indiana Chain Co. has purchased two acres of ground in North Indianapolis, and will at once begin the erection of a brick building two stories high, 200 × 60 ft.

GRAND RAPIDS, MICH.—The Sintz Gas Engine Co. has commenced work on its new building; a stone foundation, 60 × 90 ft., is being laid.

JACKSON, MICH.—A new wheel factory is to be built soon by a company with a capital stock of $40,000; R. H. Emerson, S. S. Heywood and M. W. Thompson are interested.

ANACONDA, MONT.—Dolan & Hammill have the contract for building machine shops to cost about $25,000 for the Butte, Anaconda & Pacific Ry.

## MINING.

NORTH CAROLINA.—In Rutherford county, N. C., work in the Ellwood gold mine, which has been profitably worked heretofore, will be resumed during August under supervision of an experienced miner, Mr. Codd. A new 750-ft. shaft will be sunk and as large a force of hands as can conveniently be put to work will be employed.

IDAHO SPRINGS, COLO.—A large amount of work is reported in progress at this place. J. B. McFarlane, Mgr., is quoted as stating that machinery capable of sinking a shaft 1,000 ft. will be put in at the Banty property before sinking farther.

BOISE CITY, IDAHO.—The owners of the Ramshorn mine at Bayhorse are contemplating putting in a 20-stamp mill to supplant the smelter.

WALLACE, IDAHO.—A press report from this place states that mills are running full time; the Golden Chest has started both mills and an additional 5-stamp mill is contemplated; negotiations are in progress for the sale of the Kincannon to Montana parties who will add 40 stamps to the mill and make the mine one of the greatest in the west. This mine is said to have the heaviest ledge of any in the gold belt of the Coeur d'Alenes.

## MISCELLANEOUS CONTRACTS.

TELEPHONE FRANCHISE.—Wilmington, Del.—The Delmarvia Telephone Co. has been granted a franchise.

GAS PLANT EXTENSIONS.—Philadelphia, Pa.—The new loan bill contains an appropriation of $1,000,000 for improvements of the gas works. Thos. M. Thompson, Dir.

TELEPHONE.—Lincolnton, N. C.—A new long-distance telephone line from this place to Reepsville, Hulls Cross Roads and other nearby towns is to be built.

DAM.—Waco, Tex.—At a public meeting recently it was voted to construct a dam near the city, at an estimated cost of $5,000. Stephen Turner, Cy. Engr.

NAVY YARD SUPPLIES.—Washington, D. C.—Bids are asked until Aug. 4 for furnishing sundry supplies at the New York navy yard, as stated in our advertising columns. Edwin Stewart, Paymaster-Gen., U. S. N.

COLD STORAGE.—Phoenix, Ariz.—An application of Mr. Copeland for a franchise for laying pipes for transmitting ammonia and compressed air for cold storage purposes has been referred to the city engineer.

DOCK AND CRIB WORK.—New York, N. Y.—Bids are asked until Aug. 5 for certain dock and crib work at Ellis Island, N. Y. H. Dr. J. H. Senner, Comr. Immigration.

GAS MAINS.—Des Moines, Ia.—The Capital City Gas Co. has nearly 200 men at work laying new gas mains and it is said that 15 to 25 miles of mains will probably be laid this season.

STONE.—Cincinnati, O.—It is stated that Maj. J. F. Gregory has awarded the contract for furnishing Bedford stone for the new Lock No. 7, on the Kentucky River, to M. P. Gray, of Frankfort, Ky., at $21,500.

DOCK.—Portchester, N. Y.—It is reported that this village, having received authority from the United States government, will begin immediately to build a new dock at Fox Island, sufficient to allow the largest boats to land.

LEVEE WORK.—Rayville, La.—The Tensas Levee Board has been allotted for the next two fiscal years ending June 30, 1898, the sum of $2,250,000 for levee work. Henry B. Richardson, Ch. State Engr.; C. P. Balfour, Pres. Bd. Levee Comrs., Rayville.

STEEL GATES.—Pittsburg, Pa.—It is reported that Maj. W. H. Heuer, Cincinnati, O., on July 14 awarded the contract for constructing two steel gates and rails for the Davis Island dam, near Pittsburg, to John McGuire, of Scranton, Pa., at $19,600.

ARCHITECTURAL COMPETITION. — Chickamauga, Ga.—Architects are asked to submit designs on or before Sept. 10 for a granite or marble and bronze soldiers' monument to cost $20,000. The state memorial board will pay $500 for the best design.

GUN EMPLACEMENT MATERIALS. — Philadelphia, Pa.—Bids are asked until Aug. 12 for furnishing and delivering at Finns Point, N. J., materials for gun emplacements, as described in our advertising columns. Maj. C. W. Raymond, U. S. Engrs.

RETAINING WALLS.—Hartford, Conn.—T. H. McKenzie has completed surveys and plans for considerable grading and changing of the retaining wall at Broad St., for the proposed improvements along the Park River front of the capitol grounds.

SUBWAY WIDENING.—Toronto, Ont.—Bids are asked until Aug. 12 for the widening of the Queen St. subway, as stated in our advertising columns. E. H. Keating, Cy. Engr.; E. P. Roden, Secy. Works Dept.; Bernard Saunders, Chn. Com. on Works.

TELEPHONE.—Chester, S. C.—This city, which has just been put in telephonic communication with Lowryville, nine miles distant, contemplates building an additional five miles of telephone, to establish communication with McConnellsville, on the line of the Chester & Lenoir R. R.

DITCHING.—St. Paul, Minn.—Bids are asked until Aug. 1 for labor and materials necessary in cutting Morken ditch in Clay county, and Warren or Vega ditch in Marshall county; check, 15% of bid. Albert Berg, Secy. Red River Valley Drainage Comn.

FIREPROOF SAFE.—Jacksonville, Fla.—Bids are asked until Aug. 4 for one fireproof safe in position at the office of the board of trustees for the water-works, new city building; inside measurements; height, about 55 ins.; width, about 45 ins., and not less than 20 ins. in depth. R. N. Ellis, Supt.; B. F. Dillon, Chn.

BRICK CONDUIT.—Boston, Mass.—Bids are asked until Aug. 1 for building a brick conduit, 15½ × 17 ft., for Stony Brook, in Columbus Ave.; work will include 18,826 cu. yds. of earth excavation 266 cu. yds. rock excavation, 1,750 cu. yds. concrete, 1,920 yds. brick masonry. Benj. W. Wells, Supt. of Streets.

DREDGING, ETC.—New York, N. Y.—Bids are asked until Aug. 24 for dredging in Canarsie Bay, N. Y.; dredging in Shoal Harbor and Compton Creek, N. J.; and for dredging in Patchogue River and Browns Creek, and constructing jetty at mouth of Patchogue River, N. Y., as stated in our advertising columns. Maj. J. G. Adams, U. S. Engrs.

CONCRETE BULKHEAD.—Stockton, Cal.—The city engineer has been instructed to prepare plans and specifications with estimates for the construction of 200 ft. of concrete bulkhead on the south side of Stockton Channel at its head. The estimates will be on a lump sum for the work, and it is contemplated that it can be built much cheaper than the permanent bulkhead already constructed.

DRAINAGE CANAL.—Princeton, Ill.—Press reports state as follows: Contracts were let July 9 for the construction of the union drainage canal, which is designed to drain about 50,000 acres of farm land in the Green River district of Lee and Bureau counties. The first section was awarded to Pollard, Goff & Co., of Champaign, Ill., at $16,000. Goffy & Doyle, of Chicago, were awarded the second section at about $10,000. Smaller contracts were awarded to other firms.

GAS FRANCHISE.—Hammond, Ind.—A press report states that a franchise has been granted to the Advance Gas Co., the officers of which are J. H. Wood, Pres. James Kitchen, Secy.; L. L. Benedict, R. W. Baldwin, James Irwin, directors, all of New York, and J. W. Keneval, of Chicago, to furnish gas made from bituminous coal instead of anthracite and coke process. It will use the invention of J. W. Keneval. He claims gas can be made after his idea at 10½ cts. per 1,000 ft.

SLIPS AND BREAKWATER.—Manitowoc, Wis.—It is stated that the contracts for building the slips on the lake front, and also for a breakwater from the south piers to extend 3,000 ft. in a southerly direction, were let last week by the Chicago & Northwestern R. R. Co. to the Chicago Dredge & Dock Co. of Chicago, and it is thought work will soon begin on the slips. The Northwestern company is said to have purchased all the property along the route to be taken by the belt line.

TELEGRAPH AND CABLE.—New York, N. Y.—The United States & Hayti Telegraph & Cable Co. was incorporated July 18 at Albany, N. Y., with a capital stock of $1,800,000; the route and points to be connected to be as follows: From New York city to Coney Island, thence by sub-marine cable to the Island of Hayti in the West Indies; and from New York city, through the states of Connecticut, Rhode Island and Massachusetts to Boston; directors, John W. Mackay, George Clapperton, Albert Beck, John Beattie and Charles E. Merritt, New York; Albert B. Chandler and Edward C. Platt, of Brooklyn.

## CONTRACT PRICES.

BRICK PAVING.—Louisville, Ky.—Contracts for paving in several streets with vitrified brick were awarded July 21 to Geo. Gosnell and Chas. V. Mehler, at $18.80 per square of 10 ft., and for paving in several alleys, at $15.30; all with 5-year guarantee. J. H. Pearson, Cy. Engr.

WATER MAINS.—New York, N. Y.—The following bids were received July 21 for furnishing and laying two 48-in. water mains in Fifth Ave., from 80th St. to Fourth St.; work to be completed in 400 working days; Chas. H. T. Collins, Comr. Pub. Wks.:

Bids for Laying 48-in. Water Mains, New York, N. Y.

| Quantities. | | Barber Asphalt Paving Co., $536,583. | Martin Lipps, $408,850. | Bernard Mahon, $477,945. | Wm. P. Baird, $452,400. | Thilemann & Smith, $480,011. | Patrick Ryan, $404,900. | P. J. Travis, $354,720. | John A. Gregory, $516,610. | Rodgers & Parrell, $506,491. | Michael J. Dady, $510,825. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rock excavation[1] | 2,000 cu. yds. | $10.80 | $9.90 | $5.00 | $5.00 | $0.50 | $5.00 | $7.00 | $2.00 | $7.00 | $1.25 |
| Rock excavation | 8,000 " " | 3.37 | .90 | 2.00 | 2.75 | .50 | 3.00 | 4.50 | 1.50 | 3.50 | 3.25 |
| Earth excavation | 80,000 " " | .47 | .90 | .40 | .33 | .50 | .25 | .65 | .50 | .70 | .50 |
| Earth filling | 75,000 " " | .34 | .40 | .20 | .12 | .50 | .40 | .25 | .10 | .20 | .17 |
| Straight pipe | 13,500 tons | 21.20 | 20.60 | 21.00 | 19.60 | 20.50 | 20.00 | 22.00 | 26.00 | 19.50 | 21.25 |
| Branches, etc. | 400 " | 43.50 | 50.00 | 39.00 | 43.00 | 47.00 | 45.00 | 50.00 | 44.00 | 45.00 | 60.00 |
| Laying 48-in. pipe | 36,000 ft. | 1.62 | 1.00 | 1.20 | 1.11 | 1.20 | 1.50 | 1.15 | 1.00 | 1.25 | 1.05 |
| 36-in. pipe | 5,000 " | 1.28 | .75 | .80 | .73 | .80 | 1.00 | .90 | .70 | 1.00 | 1.00 |
| 20-in. " | 1,000 " | .80 | .40 | .60 | .45 | .30 | .50 | .65 | .50 | .75 | .85 |
| 12-in. " | 14,000 " | .52 | .15 | .32 | .30 | .20 | .30 | .40 | .40 | .50 | .65 |
| 6-in. " | 5,000 " | .30 | .15 | .20 | .22 | .15 | .15 | .30 | .25 | .40 | .45 |
| 48-in. stop-cocks and gearing[2] | 7 | 1,065 | 1,000 | 1,100 | 1,500 | 1,400 | 1,250 | 1,500 | 1,000 | 1,300 | 1,100 |
| 36-in. " " " | 7 | 555.00 | 550.00 | 425.00 | 600.00 | 499.00 | 500.00 | 700.00 | 700.00 | 500.00 | 600.00 |
| 20-in. " " " | 10 | 252.00 | 200.00 | 100.00 | 200.00 | 249.00 | 250.00 | 300.00 | 300.00 | 150.00 | 250.00 |
| 12-in. " " " | 30 | 51.00 | 50.00 | 50.00 | 35.00 | 39.00 | 50.00 | 40.00 | 60.00 | 40.00 | 60.00 |
| 6-in. " " " | 50 | 26.00 | 30.00 | 13.00 | 20.00 | 25.00 | 30.00 | 27.00 | 50.00 | 20.00 | 30.00 |
| Dble case hydrants, furn., set | 70 | 46.00 | 60.00 | 57.00 | 65.00 | 60.00 | 50.00 | 55.00 | 70.00 | 60.00 | 100.00 |
| Brick masonry | 400 cu. yds. | 14.28 | 10.00 | 8.00 | 9.00 | 11.00 | 12.00 | 15.00 | 8.00 | 12.00 | 20.00 |
| Concrete | 100 " " | 5.12 | 5.00 | 3.00 | 4.50 | 4.00 | 5.00 | 6.00 | 3.00 | 8.00 | 7.50 |
| Pavem't and flagging | 3,000 sq. yds. | .13 | .50 | .10 | .45 | 1.00 | .50 | .50 | .15 | 2.00 | 1.00 |
| Granite pvg., tr and gravl jnts | 20,000 " " | 1.00 | 1.00 | 1.50 | 1.25 | 1.50 | 1.50 | 2.50 | .45 | 1.00 | 1.25 |
| Curb and gutter | 1,000 lin. ft. | .13 | .10 | .05 | .08 | .20 | .10 | .10 | .01 | .25 | .25 |
| Blowoffs | 12 | 30.75 | 50.00 | 25.00 | 10.00 | 9.00 | 25.00 | 10.00 | 50.00 | 12.00 | 100.00 |

[1]Without blasting. [2]The stop-cocks and gearing include furnishing and setting.

SEWERS.—New York, N. Y.—The following bids were received by Louis F. Haffen, Comr. St. Impvts., 2622 Third Ave., July 18, for constructing sewer across Moshula Parkway and Bronx Park:

| Quantities. | | Cattaberry & Platone, $11,254. | M. Redmond, $39,783. | Bart. Dunn, $42,165. | Ridgeway & Chapman, $39,403. | P. F. Brennan, $40,000. |
|---|---|---|---|---|---|---|
| 48-in. brick | 2,235 ft. | $7.75 | $7.00 | $8.00 | $7.50 | $8.00 |
| 42-in. " | 1,467 " | 6.65 | 6.50 | 8.00 | 5.50 | 6.00 |
| 30-in. c.-i.p. | 429 " | 7.50 | 10.00 | 5.50 | 9.00 | 8.00 |
| 15-in. pipe | 1,185 " | 2.50 | 2.80 | 2.50 | 2.80 | 2.70 |
| 24-in. " | 210 " | 2.00 | 2.50 | 3.50 | 2.50 | 2.70 |
| 18-in. " | 30 " | 2.00 | 2.80 | 2.50 | 2.50 | 2.00 |
| 15-in. " | 50 " | 1.75 | 2.70 | 2.50 | 2.25 | 1.50 |
| 10-in. " | 30 " | 1.00 | 2.00 | 1.40 | 1.00 | 1.00 |
| Manholes | 22 | 45.00 | 50.00 | 50.00 | 50.00 | 55.00 |
| Rock excav. | 1,200 cu. yds. | 2.75 | 2.75 | 2.00 | 2.25 | 2.30 |
| Concrete | 50 " " | 4.00 | 5.00 | 3.00 | 3.50 | 4.00 |
| Rubble mas. | 250 " " | 5.00 | 2.00 | 4.00 | 3.50 | 4.00 |
| Brken stone | 100 " " | 2.00 | .50 | 1.50 | 1.50 | 1.50 |
| Lumber | 30 M. ft. | 22.00 | 20.00 | 15.00 | 25.00 | 25.00 |
| Days to complete work | | 200 | 100 | 350 | 225 | 220 |

ARTESIAN WELL.—Denver, Colo.—H. A. Sumner, State Engr., received the following bids July 15 for sinking an artesian well near Cortez, Colo.: The Colorado Drilling Co., Denver, for the sum of $2,700, 540 ft. cased with 4-in. casing; 375 ft. cased with 6-in. casing; $5 for each additional foot with 4-in. casing; $6 for each additional foot with 6-in. casing. C. N. Dadgley & Co., Denver, 375 ft., 300 ft., $7 and $8 respectively.

ASPHALT BLOCK PAVING.—Troy, N. Y.—A contract for 1,267 sq. yds. of asphalt block paving in King St. has been awarded to Casey & Cavanaugh, 86 Ninth St., Troy, at $3.16 a sq. yd. for the Hastings asphalt blocks, 55 cts. a sq. ft. for new bridge stone, 93 cts. a lin. ft. for new curbing, 10 cts. a lin. ft. for old curb redressed and reset, 15 cts. a sq. ft. for old bridge-stone redressed and reset, $57 for each catch-basin repaired and new cover furnished; total, $4,753; also for 1,330 sq. yds. in Seventh Ave. at about the same prices; total, $4,892. John J. Mooney, 111 Adams St., Troy, bid $3.22, 60 cts., 95 cts., 7½ cts., 15 cts. and $59, respectively, for the first contract and about the same prices for the Seventh Ave. work. E. Ogden Ross, Secy. Contracting Board.

WATER-WORKS.—Gilbertsville, N. Y.—The awarding of the contract for constructing water-works, as advertised in Engineering News, to L. J. Richardson, was noted in our issue of July 16 under Water-Works. Some of the bids with the principal items were as follows; pipe-laying includes furnishing lead and jute; 7,100 ft. of 4-in. pipe to be laid 3 ft. deep; engineer's estimate, $12,451; E. F. Musson, Engr., Norwich, N. Y.:

Fifteenth St. district, estimated cost $65,291; specifications call for concrete foundation and asphalt of equal standard and quality to that from Trinidad Lake, Bermudez, or from the mines of the Pacific Asphalt Co., in Santa Barbara county, Cal.: Broadway—F. O. Blake Paving Co., $2.59 a sq. yd; total, $90,670; Colorado Paving Co., $2.57, $87,725; Hugh Murphy, $2.10, $75,718; Western Bermudez Co., $2.57, $80,880; W. S. Hipt, $2.03, $70,892. Lower Fifteenth St.—F. O. Blake Paving Co., $2.59½, $46,876; Hugh Murphy, $2.34½, $40,269; Western Bermudez Co., $2.61, $47,335; Colorado Paving Co., $2.89, $52,783; W. S. Hipt, $2.03, $36,819. Local papers state that W. S. Hipt is from Galveston, Tex., and proposes to use asphalt from Indian Territory, and that Hugh Murphy bid on Alcatraz asphalt, now in use on West Larimer St.

HYDRANTS AND VALES.—Camden, N. J.—The water board has awarded the contract for supplying hydrants and valves during the year to the Camden Iron Works at the following prices: 6-in. hydrants, $39.45 each; 4-in. hydrants, $26.45; 8-in. water gates, $15; 6-in. water gates, $10.50; 4-in. water gates, $6.50.

Bids Received July 11 for Constructing Water-Works, Gilbertsville, N. Y.

| Bidder. | | Geo. A. Wright, Walton, N. Y., $7,957. | A.P.Underwood, Edmeston, N. Y., $12,693. | Flood & Sherrill, Sandy Hill, N.Y., $12,288. | M.B. Birdseye, Fayetteville, N.Y., $12,189. | Chenango Engr. Co., Binghamton, N. Y., $14,110. | M.J.Fitzpatrick, Plattsb'g, N.Y., $12,741. | John Morrell, Mohawk, N.Y. | Aetna Const'n $12,601. Co., B'klyn, N.Y., $13,151. | L.J.Richardson, Owego, N. Y., $11,618. | Harter, Lewis & Co., Mohawk, N.Y., $12,211. | W. H. Cookman, Niagara Falls, N.Y., $12,621. | W. G. Conkling, Glens Falls, N. Y., $8,986. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pipe | 286 tons... | ..... | $19.50 | $19.50 | $19.50 | $20.50 | $19.75 | $19.75 | $19.50 | $19.50 | $19.40 | $20.00 | ..... |
| 10-in. valves | 1........ | ..... | 22.80 | 21.00 | 21.00 | 22.80 | 20.98 | 21.75 | 21.50 | 21.00 | 15.00 | 23.00 | ..... |
| 6-in. " | 4........ | ..... | 10.65 | 10.50 | 10.00 | 10.63 | 9.78 | 10.50 | 10.25 | 10.50 | 9.50 | 11.00 | ..... |
| 4-in. " | 10........ | ..... | 6.40 | 7.00 | 6.00 | 6.40 | 5.89 | 6.25 | 6.10 | 6.50 | 6.00 | 7.00 | ..... |
| Valve boxes | 12........ | ..... | 2.70 | 3.00 | 2.50 | 2.50 | 2.50 | 2.75 | 2.50 | 2.50 | 2.30 | 2.60 | ..... |
| Hydrants | 28........ | ..... | 22.80 | 22.50 | 21.00 | 22.80 | 20.98 | 21.50 | 20.66 | 21.00 | 20.50 | 22.25 | ..... |
| Earth excavat'n | 900 cu. yds. | $0.35 | .20 | .25 | .25 | .22 | .30 | .25 | .25 | .19 | .22 | .20 | $0.25 |
| Rock excavation | 1 " " | 2.50 | 2.00 | 2.50 | 3.00 | 4.00 | 2.75 | 2.50 | 2.50 | 1.50 | 2.50 | 4.00 | 3.50 |
| Lay'g 8-in. pipe | 1,800 ft...... | .35 | .18 | .17 | .21 | .19⅛ | .17½ | .18 | .18 | .17 | .17 | .30 | .20 |
| " 6-in. " | 5,400 " ..... | .25 | .16 | .15 | .14 | .17⅛ | .15½ | .15 | .16 | .13 | .14 | .16 | .18 |
| " 4-in. " | 17,066 " ..... | .20 | .12 | .12 | .12½ | .13½ | .14 | .12 | .14 | .11 | .12 | .12½ | .14 |
| Cement masonry | 342 cu. yds. | 5.00 | 5.00 | 4.00 | 4.00 | 7.00 | 4.50 | 4.85 | 5.00 | 3.85 | 4.75 | 4.00 | 5.00 |
| Concrete | 40 " " | 5.50 | 4.50 | 5.00 | 5.00 | 5.00 | 3.90 | 6.00 | 5.00 | 4.25 | 4.50 | 4.00 | 6.00 |
| Specials | 10,000 lbs..... | ..... | .02 | .02 | .02 | .02¼ | .02 | .02 | .02 | .02 | .02 | .02¼ | ... |

SEWERS.—Racine, Wis.—O. Burlingame, Cy. Engr., informs us that the following bids were received July 11 for constructing brick and pipe sewers, both contracts being awarded to Rasmussen & Anderson Co.; all local bidders except Wm. Forrestal, of Milwaukee; the total to the bids of the Duck Creek Sewer is for a 3-ring sewer:

| Duck Creek Sewer. | | J. Mutler & Co., $11,739. | Rasmussen & Anderson, $9,086. | Jas. Cape & Sons, $12,782. | Wm. Forrestal, $12,923. | N. F. Reichert Co., $14,219. |
|---|---|---|---|---|---|---|
| 8-in. pipe | 300 lin. ft. | $0.35 | $0.30 | $0.30 | $0.75 | $0.35 |
| Brick: | | | | | | |
| 78-in. 2-ring | 790 " " | 4.38 | 3.90 | 4.50 | 4.72 | 5.10 |
| 78-in. 2½-ring | 790 " " | 5.37 | 4.25 | 6.00 | 5.65 | 7.10 |
| 78-in. 3-ring | 790 " " | 6.47 | 5.00 | 7.50 | 6.51 | 8.30 |
| 78-in. 3½-ring | 790 " " | 7.62 | 5.50 | 8.50 | 7.51 | 9.75 |
| 84-in. 2-ring | 486½" " | 4.68 | 4.50 | 5.95 | 4.90 | 5.57 |
| 84-in. 2½-ring | 486½" " | 5.68 | 5.00 | 6.00 | 5.87 | 7.20 |
| 84-in. 3-ring | 486½" " | 7.15 | 5.50 | 8.00 | 6.85 | 8.40 |
| 84-in. 3½-ring | 486½" " | 8.30 | 6.00 | 9.50 | 7.85 | 9.75 |
| 90-in. 2-ring | 300 " " | 5.06 | 5.25 | 7.80 | 5.10 | 6.93 |
| 90-in. 2½-ring | 300 " " | 6.20 | 5.40 | 7.90 | 6.07 | 8.40 |
| 90-in. 3-ring | 300 " " | 7.40 | 5.80 | 8.00 | 7.10 | 8.90 |
| 90-in. 3½-ring | 300 " " | 8.75 | 6.50 | 10.50 | 8.10 | 10.00 |
| Manholes | 5........ | 35.00 | 20.00 | 20.00 | 25.00 | 20.00 |
| Catch basins | 15........ | 35.00 | 20.00 | 20.00 | 25.00 | 30.00 |
| Concrete | 25 cu. yds. | 5.00 | 6.00 | 3.25 | 4.00 | 10.00 |

| Blue River Sewer: | | J. O. Jones. | Jas. Cape & Sons. | Rasmussen & Anderson. | N. F. Reichert Co. | Hanson & Co. |
|---|---|---|---|---|---|---|
| 8-in. pipe | 1,000 ft. | $0.50 | $0.30 | $0.40 | $0.40 | $0.40 |
| 10-in. " | 235 " | .75 | .40 | .50 | .60 | .55 |
| 12-in. " | 270 " | .80 | .50 | .60 | .60 | .70 |
| 15-in. " | 455 " | .90 | .70 | .75 | .85 | 1.00 |
| 18-in. " | 270 " | .93 | 1.00 | 1.10 | 1.15 | 1.00 |
| 24-in. " | 310 " | 1.13 | 1.35 | 1.50 | 1.50 | 1.35 |
| 36-in. brick | 270 " | 2.35 | 3.55 | 2.50 | 3.20 | 2.75 |
| 38-in. " | 270 " | 2.65 | 3.65 | 2.50 | 3.20 | 2.75 |
| 40-in. " | 110 " | 2.95 | 3.75 | 2.80 | 3.50 | 2.75 |
| 42-in. " | 255 " | 3.63 | 4.00 | 3.00 | 3.50 | 2.75 |
| 48-in. " | 190 " | 3.95 | 4.00 | 3.00 | 3.50 | 2.75 |
| Manholes | 13... | 23.00 | 22.00 | 20.00 | 30.00 | 25.00 |
| Lampholes, each | ....... | 1.00 | ..... | 6.00 | ..... | ..... |
| Flushtanks | 3... | 53.00 | 60.00 | 75.00 | 90.00 | 75.00 |
| Catch basins | 14... | 23.00 | 22.00 | 20.00 | 30.00 | 25.00 |
| Concrete, cu.yds. | 10... | 4.00 | 3.00 | 7.00 | 10.00 | 1.00 |
| Total | | $6,248 | $6,477 | $5,611 | $6,735 | $5,783 |

SEWER.—New York, N. Y.—The following bids were received by Louis F. Haffen, Comr., 2622 Third Ave., July 18, for constructing a sewer in 167th St., Intervale Ave. to West Farms Road:

| Quantities. | | Thos. Barry, $28,302. | M. Dunn, $26,594. | P. F. Curran, $29,711. | W. F. Murray, $25,615. | P. Handibode, Jr., $26,864. |
|---|---|---|---|---|---|---|
| 26×36" br'k. | 1,410 ft..... | $5.50 | $4.75 | $5.50 | $6.75 | $6.00 |
| 18-in. pipe | 295 " ..... | 5.00 | 3.00 | 2.80 | 3.00 | 3.00 |
| 15-in. " | 306 " ..... | 3.00 | 2.75 | 2.60 | 2.00 | 3.00 |
| 12-in. " | 800 " ..... | 3.00 | 2.00 | 2.50 | 1.50 | 2.00 |
| Spurs | 580........ | .30 | .50 | .45 | .30 | ... |
| Manholes | 26........ | 50.00 | 50.00 | 45.00 | 64.00 | 50.00 |
| Rec. basins | 12........ | 140.00 | 140.00 | 120.00 | 110.00 | 100.00 |
| Rock excav | 5,000 cu. yds. | 2.50 | 2.65 | 3.00 | 2.00 | 2.50 |
| Concrete | 15 " " | 3.00 | .01 | 4.50 | 2.00 | .... |
| Rubble mas. | 10 " " | 4.00 | .01 | 4.00 | 2.00 | .... |
| Brkn. stone. | 5 " " | 1.00 | .01 | 1.20 | 1.00 | .... |
| Lumber | 5 M. ft... | 20.00 | .01 | 20.00 | 30.00 | .... |
| 12—18" pipe | 50 ft...... | 4.00 | 1.00 | 5.00 | .75 | .50 |

INTERCEPTING SEWER.—Portland, Me.—Geo. N. Fernald, Comr. Pub. Wks., writes us that the contract for constructing about 2,600 ft. of the North Side intercepting sewer, as advertised in Engineering News, has been awarded to Richard D. Shannahan, bids being as follows: (1) earth excavation above grade for 48-in. sewer, 5,960 cu. yds.; (2) brick masonry, American and Portland cement, 660 cu. yds.; (3) concrete, American cement, 780 cu. yds.:

| | 1. | 2. | 3. | Total. |
|---|---|---|---|---|
| Craib & Trumbull, Winthrop, Mass. | $0.80 | $5.00 | $3.50 | $10,798 |
| R. D. Shannahan, Portland,.... | .80 | 4.00 | 4.00 | 10,528 |
| Ames & O'Shea, Somersworth, N.H. | .95 | 4.50 | 3.50 | 11,362 |
| F. L. Allen, Worcester, Mass..... | 1.10 | 5.00 | 3.25 | 12,391 |
| F. P. Johnson, Waltham, Mass... | 1.24 | 3.95 | 3.33⅓ | 12,597 |
| John Walker, Newmarket, N.H... | 1.15 | 4.50 | 4.50 | 13,334 |
| H.A.Hanscom & Co., Chelsea, Mass. | 1.00 | 6.00 | 5.50 | 14,210 |
| James Cunningham, Portland.... | 1.25 | 6.00 | 6.00 | 16,090 |

PAVING, ETC.—Baltimore, Md.—The following were the successful bids received July 13 and opened July 15 for grading, paving and curbing certain street; all local bidders; Janon Fisher, Cy. Comr.:

DREDGING, ETC.—Buffalo, N. Y.—Maj. Thomas W. Symons, U. S. Engrs., received 30 inquiries and the following bid for dredging and furnishing and placing riprap stone at Erie Harbor, Pa., as advertised in Engineering News: Kingston & Wood, 27 Coit Block, Buffalo, 19 cts. a cu. yd. for 25,000 cu. yds. of dredging and $2.45 a cu. yd. for 750 cu. yds. of riprap stone.

SEWERS.—Sharpsburg, Pa.—E. C. Hulbert, Borough Engr., writes us that the following bids were received June 23 for constructing sewers, the contract being awarded at the July meeting of the council to P. O'Donnell & Co.:

Bids for Constructing Clay St. Sewers, Sharpsburg, Pa.

| Bidder. | 36-in. 2-ring brick, 950 ft. | 24-in. tile sewer, 430 ft. | 12-in. tile sewer, 1,100 ft. | 10-in. tile sewer, 420 ft. | Drops, each, 11. | Manholes, 10. | 30-in. tile sewer. | Concrete, cu.yds. | 36-in. brick sewer, 1-ring | Total. |
|---|---|---|---|---|---|---|---|---|---|---|
| K. Bracken, Pittsburg, Pa. | $7.25 | $2.65 | $1.27 | $1.15 | $40.00 | $34.00 | $4.90 | $4.90 | ..... | $10,763 |
| W. J. Dunn, Pittsburg, Pa. | 2.83 | 1.65 | .70 | .62 | 40.00 | 20.00 | ..... | ..... | ..... | 5,110 |
| Harvey Sloan, Allegheny, Pa. | 2.95 | 1.72 | .75 | .70 | 50.00 | 20.00 | ..... | 4.00 | $2.25 | 5,456 |
| J. A. Ranson, Sharpsburg, Pa. | 3.50 | 2.25 | 1.12 | 1.02 | 30.00 | 25.00 | ..... | 5.00 | ..... | 6,600 |
| Bowman Bros., McKeesport, Pa. | 3.15 | 1.76 | .70 | .67 | 50.00 | 35:00 | 3.30 | 5.00 | ..... | 5,743 |
| Sloan, McIlvane & Ott Bros., Allegheny | 2.73 | 1.59 | .63 | .55 | 35.00 | 25.00 | ..... | 5.00 | ..... | 4.874 |
| P. Braun, Sharpsburg, Pa. | ..... | 1.87 | .61 | .52 | 23.50 | 22.00 | ..... | ..... | 2.53 | 4,612 |
| Con Acetta, Pittsburg, Pa. | 3.04 | 1.45 | .59 | .54 | 16.00 | 23.00 | ..... | ..... | ..... | 4,829 |
| Samuel Gample, Pittsburg, Pa. | 3.49 | 1.60 | .87 | .75 | 25.00 | 25.00 | ..... | ..... | ..... | 5,853 |
| P. O'Donnell & Co., Pittsburg, Pa. | 2.90 | 1.50 | .40 | .35 | 20.00 | 20.00 | 2.78 | ..... | ..... | 4,431 |
| Sullivan & Adams, Allegheny, Pa. | 3.38 | 1.85 | .68 | .58 | 43.50 | 23.50 | ..... | 6.00 | ..... | 5,762 |
| J. C. Speath, & Co., Pittsburg, Pa. | 2.62 | 1.52 | .62 | .60 | 25.00 | 30.00 | ..... | ..... | ..... | 4,689 |

BRICK AND STONE PAVING.—Elmira, N. Y.—Thos. Spence, Cy. Clk., writes us that the following contracts have been awarded for paving, as advertised in Engineering News; bids opened July 20: Ward, Clark & Cahoon, Elmira, one contract each at $1.77 and $1.83 a sq. yd. for U. S. fire clay vitrified brick; R. E. Beardsley, Elmira, $1.74 for Reed & Ettla pyrogranite repressed brick; Costello & Nagle, Elmira, $2.87 for Medina nicked blocks, and $2.77½ for White Haven granite, one contract of each; all pavement to be laid on concrete foundation.

POWER PLANT.—Bangor, Me.—The contract for additions to power plant, Bangor water-works, was awarded July 17 to Bearce & Clifford, bids being as follows; Walter I. Brown, Clk. Bd.:

| Quantities. | | L. F. Kittredge & Son, Lowell, Mass. | John F. Merrill, Bangor, Me. | Bearce & Clifford, Lewiston, Me. |
|---|---|---|---|---|
| Earth excavation | 3,000 cu. yds. | $0.35 | $0.45 | $0.33 |
| Rock excavation | 500 " " | 2.00 | 2.75 | 2.75 |
| Back filling | 300 " " | .30 | .35 | .25 |
| Broken range work[1] | 2,370 " " | 13.50 | 12.25 | 11.75 |
| Grouted rub. mas.[2] | 1,694 " " | 6.00 | 7.75 | 7.70 |
| Grouted rub. mas.[3] | 1,300 " " | 7.50 | 9.75 | 9.75 |
| Concrete, Alpha cem. | 50 " " | 9.50 | 9.50 | 9.25 |
| Stone flig., crb wrk. | 400 " " | 2.00 | 2.50 | 2.41 |
| Earth fill. for dams | 800 " " | .50 | .65 | .61 |
| Tmbr & plank, cribs | 60 M. ft... | 35.00 | 50.00 | 20.00 |
| Timber and plank[4]. | 350 " " | 20.00 | 50.00 | 20.00 |
| Brick, Portland cement | | 25.00 | 23.00 | 22.50 |
| Rosendale hyd. cement | | 18.00 | 17.00 | 16.50 |
| For pumping | | 1,200.00 | ..... | ..... |
| Superstructures[5] | | 35,488 | 21,000 | 20,750 |
| Total | | $101,512 | $101,221 | $86,871 |

[1]Stone masonry, Alpha cement. [2]Rosendale hydraulic cement. [3]Alpha cement. [4]In cofferdam. [5]Pump and wheel houses and timber flume.

Lowest Bids for Paving, Curbing, Etc., Baltimore, Md., July 13, 1896.

| Bidder. | Grading, per cu. yd. | Cobblestone pvg. (incl. gutter stones, sq.ft. | 5-in. curbstones and circles, per lin. ft. | 4½-in. curbstones and circles, per lin. ft. | Flagstone crossings, per sq. ft. | Cobble repaving, per sq. ft. | Re-setting curbstones and circles, per lin. ft. | Re-laying flagstones, per sq. ft. | Total. | Street. |
|---|---|---|---|---|---|---|---|---|---|---|
| Patrick Reddington | $0.15 | $0.06¼ | $0.60 | $0.50 | $0.34 | $0.03 | $0.08 | $0.06 | $8,855 | Bayard St., Columbia to Paca St. |
| C. J. Philbin & Co. | .14 | .07½ | .62½ | .47½ | .28 | .02¾ | .07 | .025 | 4,007 | Beason St., Andre St. to Hull St. |
| Patrick Keetly | .14 | .06½ | .65 | .45 | .33 | .01 | .02 | .02 | 3,102 | Baker St., Fulton Ave. to Liberty Rd |
| Patrick Reddington | .15 | .08 | .60 | .40 | .34 | .03 | .08 | .06 | 2.202 | Bruce Alley, Baker St. to North Av |
| Patrick Keelty | .15 | .06½ | .65 | .50 | .33 | .02½ | .06 | .03 | 7,513 | Covington St., Fort Av. to Wells St. |
| Patrick Keelty | .15 | .06⅞ | .65 | .45 | .33 | .03 | .08 | .02 | 2,181 | Lawrence St., Fort Av. to Calumet St |
| Patrick Reddington | .20 | .07½ | .60 | .50 | .34 | .03 | .08 | .06 | 2,080 | Marshall St., Fort Av. to Beverly St. |
| C. J. Philbin & Co. | .11 | .07½ | .62½ | .47½ | .28 | .03 | .07½ | .02¾ | 558 | Intersect'n Canton and Luzerne Sts. |

ASPHALT PAVING.—Winnipeg, Man.—T. A. Platt, Clk. Com., writes us that no contract for the 22,000 sq. yds. of asphalt paving was awarded July 15, owing to the opposition of certain property owners; bids were as follows:

| Items. | A. W. Gadson, Toronto. | Barber Asp. Pav. Co., New York. | Kelly Bros. & Co., Winnipeg. | Warren-Scharf Asp. Pav. Co., New York. |
|---|---|---|---|---|
| Paving, sq yd..... | $2.40 | $2.90 | $2.49 | $2.65 |
| Stone curb, lin. ft. | .98 | 1.20 | .88 | 1.00 |
| Circ'lr curb, lin. ft. | 1.35 | 2.00 | .99 | 2.00 |
| Total | $83,874 | $99,140 | $81,634 | $88,690 |

ASPHALT PAVING.—Denver, Colo.—The following bids were received July 6 for paving in Broadway paving district No. 1, estimated cost $113,500, and in the lower

SEWER BRICK.—Minneapolis, Minn.—The following contracts have been awarded for sewer brick: Hennepin Brick Co., 60,000, at $5.75; Rielle & Aronson, 400,000, at $6.25.

PIPE AND STAND-PIPE.—Malvern, Pa.—The lowest bids July 20 for furnishing 1,200 ft. of 8-in., 3,358 ft. of 6-in. and 1,143 ft. of 4-in. cast-iron pipe for the new water-works, as advertised in Engineering News, was that of the South Pittsburg Pipe Works at $17.60 per net ton, specials at 2 cts. a lb. The bids for a 15 × 70 ft. stand-pipe were as follows:

| | |
|---|---|
| Keller & Co. | $2,575.00 |
| W. N. Kratzer & Co., Pittsburg, Pa. | 2,575.00 |
| Reeve Bros., Pittsburg, Pa. | 2,513.70 |
| Philadelphia Engineering Works | 2,150.00 |
| Coatsville Boiler Works | 2,175.00 |
| Tippett & Wood, Phillipsburg, N. J. | 2,300.00 |
| Warden Mfg. Co., Philadelphia | 3,433.00 |
| Sotter Bros., Pottstown, Pa. (awarded contract) | 2,000.00 |

STORM SEWER.—Rock Island, Ill.—W. A. Darling, Cy. Engr., writes us that the contract for constructing 4,000 ft. of 48-in. brick storm drain, average cut 9 ft., estimated cost, $19,000, as noted in our issue of June 11, was awarded on July 13 to John J. Mulherne, the bids being as follows:

| Bidder. | Wing walls, cu. yd. | Lowering sewer, lin. ft. | Bid on balance, Portl'nd cement. |
|---|---|---|---|
| McManus & Tucker, Keokuk, Ia. | $5.25 | $0.31 | $20,372[1] |
| Edwards & Walsh, Davenport... | 3.50 | 2.50 | 14,270[2] |
| J. J. Mulherne, Rock Island, Ill. | 4.00 | .07 | 12,169 |
| Rudolph Ehrhart & Co. | 5.00 | 6.00 | 19,389 |
| Adams & Gates, Muscatine, Ia.. | 5.00 | 1.15 | 21,200 |

[1]$18,975 using Utica cement; [2]$13,400 using Milwaukee cement.

Contract Work Should Always be Advertised in a Paper Read by Contractors

ASPHALT PAVING.—Troy, N. Y.—The contract for paving First St., from Liberty to Polk St., with sheet asphalt, has been awarded to Wm. J. Wilson, 28 First St., Albany, at $59,522, the contractor to use asphalt rock from the Lake-Larbon Rubber Co.'s mines, at Cline, Uvalde county, Tex.; bids were opened July 14 as follows E. Ogden Ross, Secy. Contracting Board:

| Bidder. | Asphalt. | Bridge stone. | Curbing. | Curb reset. | Bridge stone | Catchbens repaired. reset. |
|---|---|---|---|---|---|---|
| W. J. Wilson | $2.50 | $0.30 | $0.90 | $0.10 | $0.10 | $40 |
| Casey & Cavanaugh | 3.20 | .60 | 1.00 | .35 | .40 | 75 |
| North. N. Y. Asp. P. Co. | 3.19 | .60 | .95 | .27 | .24 | 70 |
| Barber Asp. Pavg Co. | 3.34 | .55 | .60 | .25 | .25 | 50 |
| Warren-Scharf A. P. Co | 3.28 | .45 | .72 | .30 | .30 | 60 |

BRICK PAVING.—Cortland, N. Y.—Wm. B. Landreth, Cy. Engr., writes us that the following bids were received July 20 for 8,500 sq. yds. of paving in Railroad St. with brick on 6 ins. of Portland cement concrete with Portland cement filling and asphalt expansion joints, as advertised in Engineering News:

Bids for Brick Paving, Cortland, N. Y., July 20.

| Bidder. | Excavation, 4,000 cu. yds. | Curb, 4,400 lin. ft. | Headers, 400 lin. ft. | Cross-walk cheeks, 20. | Alley corner, blocks, 20. | Cast-iron, 30,000 lbs. | Brick paving, 8,500 sq. yds. |
|---|---|---|---|---|---|---|---|
| Costello & Nagle, Elmira, N. Y. | $0.30 | $0.55 | $0.46 | $7.50 | $3.00 | $0.04 | $1.90 to $2.14 |
| R. E. Dunston & Co., Cortland, N. Y. | .44 | .52 | .49 | 5.70 | 2.20 | .018 | 2.01 " 2.48 |
| Abbott-Gamble Construction Co., St. Louis, Mo. | .28 | .46 | .46 | 7.45 | 2.95 | .018 | 1.73 " 2.20 |
| Eugene Fee, Olean, N. Y. | .30 | .45 | .45 | 4.50 | 4.50 | .015 | 1.92 " 2.30 |
| G. D. Grannis, Syracuse, N. Y. | .195 | .47 | .40 | 6.00 | 2.50 | .02 | 1.69 " 2.08 |
| J. E. Miles & Co., Easton, Pa. | .35 | .53 | .41 | 6.90 | 2.75 | .025 | 1.92 " 2.25 |
| O. N. Gardner, Jamestown, N. Y. | .16 | .55 | .40 | 3.00 | 2.00 | .02 | .... " 2.12 |
| Jamestown Construction Co., Jamestown, N. Y. | .20 | .52 | .48 | 5.00 | 1.50 | .0165 | 1.68 " 2.21 |

PIPE SEWERS.—Medford, Mass.—The following bids were received July 20 for constructing about three miles of 12 to 6-in. pipe sewers, section 14 of the sewerage system; T. Howard Barnes, Cy. Engr.:

| Bidder. | Earth excav. 0 to 8 ft., 15,000 cu. yds | Earth excav. 8 to 14 ft., 3,000 cu. yds. | Earth excav. 14 to 20 ft., 220 cu. yds. | Brick masonry, 270 cu. yds. | Concrete, 80 cu. yds. | Pipelaying, 17,650 ft. | Total. |
|---|---|---|---|---|---|---|---|
| John Booth | $0.40 | $0.70 | $1.00 | $4.50 | $4.00 | $0.10 | $11,620 |
| J. P. O'Connell | .52 | .70 | 1.00 | 4.75 | 4.00 | .10 | 13,488 |
| J. L. Bryne | .43 | .80 | 1.50 | 5.00 | 5.00 | .15 | 13,578 |
| F. L. Allen | .50 | .85 | 1.50 | 4.50 | 4.00 | .10 | 13,680 |
| W. T. Ross | .47 | .83 | 1.20 | 4.80 | 4.80 | .13 | 13,779 |
| D. A. Dorey | .50 | .90 | 1.50 | 5.00 | 4.00 | .10 | 13,965 |
| J. Bruno | .45 | 1.05 | 1.25 | 5.25 | 4.50 | .15 | 15,055 |
| Jno. Marsden | .62 | .90 | 1.50 | 5.00 | 4.00 | .10 | 15,765 |
| H. A. Hanscom & Co. | .50 | .90 | 1.30 | 5.00 | 5.00 | .20 | 15,766 |
| Craib & Trumbull | .60 | .80 | 1.50 | 5.00 | 4.00 | .20 | 16,930 |

BRICK PAVING.—Alexandria, Ind.—G. A. Gessner, Jr., Cy. Engr., writes us that the contract for 1,134 lin. ft. of brick paving for which bids were opened July 11, has been awarded to P. T. O'Brien, Elwood, Ind. Nelsonville star paving brick were adopted for sidewalks, and R. McClamrock & Co., Frankfort, Ind., lowest bidders, had no bid on this material; Porter, Bowlin & Hadley, Tipton, Ind., were the only other bidders; bids were as follows:

| Quantities. | | P. B. & H., $8,901. | McC. & Co., $8,253. | P. T. O'B., $8,513. |
|---|---|---|---|---|
| 5 × 24-in. Berea sandstone curb | 1,712 ft. | $0.55 | $0.49 | $0.54 |
| 4 × 18-in. " " " " | 190 " | .50 | .25 | .39 |
| 5 × 24-in. Oolitic limestone | 1,712 " | .50 | .50 | .49 |
| 4 × 18-in. " " " | 190 " | ... | ... | ... |
| 12-in. sewer pipe | 60 " | .30 | .30 | .37 |
| 9-in. " " | 20 " | .20 | .22 | .37 |
| 12-in. Y branches | 2... | 2.00 | 2.00 | .74 |
| Catch basins | 2... | 25.00 | 20.00 | 10.00 |
| Met. blocks, on gravel, sq. yds. | 3,983... | 1.55 | 1.45 | 1.50 |
| Same, broken stone foundation | 3,983... | 1.70 | 1.55 | 1.65 |
| Brick sidewalks, per sq. yd. | 1,794... | .90 | .85 | .83 |
| Curb redressed and reset | | .25 | .12 | .10 |

ASPHALT PAVING.—Sioux City, Ia.—L. F. Wakefield, Cy. Engr., informs us that the following bids were received July 21 for 26,440 sq. yds. of asphalt paving on 6 ins. concrete in Fourth St., as advertised in Engineering News of July 16:

| Items. | Warren-Scharf Asp. Pav. Co. | Metropolitan Asp. Pav. Co. | Barber Asphalt Paving Co. |
|---|---|---|---|
| Paving, per sq. yds. | $2.39 | $2.73 | $2.50 |
| Ex. grading, cu.yd., 1,000 ft. haul | .31 | .30 | .30 |
| Overhaul, per cu.yd., per 1,000 ft | .005 | .00¾ | .005 |
| Concrete, per cu. yd. | 7.00 | 6.95 | 7.00 |
| Gravel, per cu. yd. | 1.35 | 1.30 | 1.25 |
| Broken stone, per cu. yd. | 3.10 | 2.80 | 3.00 |
| Sand, per cu. yd. | 1.53 | 1.55 | 1.50 |
| Resetting old curb, per lin. ft. | .09 | .10 | .08 |
| New curb, per lin. ft. | .72 | .72 | .70 |
| Drain tile, per lin. ft. | .04 | .04 | .035 |
| Maintenance, 1st 5 yrs, per sq. yd. | .005 | .003 | .001 |
| " 2d " " " " " | .37 | .40 | .35 |
| " 3d " " " " " | .37 | .40 | .36 |
| Total | $63,192 | $72,181 | $66,100 |
| Total cost for 15 years | 82,889 | 93,413 | 84,634 |

BRICK PAVING.—New Haven, Conn.—C. W. Kelly, Cy. Engr., has sent us a statement of the bids received July 15 for paving portions of two streets with brick on 6 ins. concrete with hot sand filling, as noted in Engineering News of July 2; the city furnishes the crushed stone delivered on line of work; Ashmun St. is unpaved; Wooster St. has a heavy telford pavement, which is to be removed by contractor and the large stone delivered to a portable crusher owned by the city. J. E. Miles & Co. bid $1.79 a sq. yd. for paving each street with Catskill brick without a guarantee and $1.82 for same with 5-year guarantee; C. W. Blakeslee & Son bid $2.17 for Barrington shale brick with 10-year guarantee in Ashmun St., and the Abbott-Gamble Contracting Co., $2.27 for Syracuse brick with 10-year guarantee in Wooster St. These were the lowest bids. There were eight different bidders, many bidding on several different kinds of brick.

STEAM ROAD ROLLER.—Stockton, Cal.—Geo. A. Bidwell, Supt. of Streets, writes us that the following bids were received July 13 for a 15-ton steam road roller, as noted in Engineering News of June 25:

| | |
|---|---|
| Enterprise Mfg. Co., Columbiana, O. (10 ton) | $2,800 |
| Mitchell, Lewis & Staver, Seattle, Wash. | 3,824[1] |
| Park & Lacey, San Francisco, Cal. | 3,883 |
| Wolf-Zwicker Co., Portland, Ore. | 3,895[2] |
| O. S. Kelly Co., Springfield, O. | 3,950 |

[1]Harrisburg roller. [2]Buffalo-Pittsburg roller.

STEAM ROAD ROLLER.—La Salle, Ill.—The following bids were received July 7 for furnishing a steam road roller, as advertised in Engineering News; F. W. Matthiessen, Mayor: O. S. Kelly Co., 37,000 lbs., $3,500; 32,000 lbs., $3,250; 27,500 lbs., $3,000; 22,400 lbs., $2,750. Harrisburg Foundry & Machine Co., 12 tons, $2,900. Aultman Co., 36,000 lbs., $3,075. Pitt's Agricultural Works, 18 tons, $3,100; 15 tons, $3,000 (accepted); 12 tons, $2,850; 10 tons, $2,750.

CAST-IRON PIPE.—Rochester, N. Y.—The contract for 125 net tons of 20-in. and 362 net tons of 12 to 4-in. cast-iron water pipe, and 19 tons of castings for 36 to 4-in. pipe, was awarded July 18 to the Buffalo Cast Iron Pipe Co., at $18.25 a ton for pipe and $40 for castings. Thos. J. Neville, Clk. Bd.

ASPHALT PAVING.—Utica, N. Y.—Bids were received July 17 for asphalt paving, the lowest bid, after deducting the price allowed for old cobble pavement, being $1.57 a sq. yd. for 1,350 sq. yds. in South St., where 4 ins. of concrete are called for; $1.67 for 10,000 sq. yds. in South St., and 1,050 sq. yds. in Madison lane, on 5 ins. of concrete; $1.45 for 8,700 sq. yds. in Whitesboro St. The itemized bids for the work in Whitesboro St. were as follows:

| Items. | Utica Pav'g Co. | Warren-Scharf. |
|---|---|---|
| Tile drains, per lin. ft. | $0.16 | $0.25 |
| Resetting curb, per lin. ft. | .03 | .10 |
| New curb and setting, per lin. ft. | .35 | .45 |
| Catch basins, each | 25.00 | 30.00 |
| Branch pipe, straight, per lin. ft. | .19 | .50 |
| Curve, bends and branches, each | 1.00 | 1.00 |
| Manholes, each | 22.50 | 40.00 |
| Asphalt paving, per sq. yd. | 2.50 | 2.50 |
| Repvg, cobble and other stone, sq.yd. | .27 | .30 |
| Relaying crosswalks, sq. yd | .03 | .04 |
| New sandstone crswlks,bk curbs,sq.ft | .16 | .18 |
| Concrete, ex. for foundation, cu. yd. | 3.50 | 5.00 |
| Moving catch basins, each | 11.00 | 15.00 |
| Manholes, remodeled, each | 2.50 | 4.00 |
| Credit, old cobble, sq. yds. | .83 | 1.05 |
| Total | $17,847.00 | $17,217.50 |
| Total for South Street | $2,936.10 | $3,149.00 |
| " So St., Park Ave. to 3d Ave. | 20,773.60 | 28,726.00 |
| " Madison Lane | 2,040.20 | 2,150.00 |

TEMPORARY TRACKS.—Philadelphia, Pa.—The contracts for the construction of temporary tracks in connection with the abolishment of grade-crossings on the line of Pennsylvania Ave. and Noble St. (Reading Subway), has been awarded to P. McManus, 1430 South Penn Square, Philadelphia. The bids for the entire work were opened May 12, as advertised in Engineering News; Thos. M. Thompson, Dir. Pub. Wks.:

Bids Received for Constructing Temporary Tracks in Philadelphia (Reading Subway).

| Quantities. | | Ryan & Kelley, 1126 N. 40th St. | P. McManus 1430 South Penn Square. | E.D.Smith, & Co., Philadelphia. |
|---|---|---|---|---|
| Laying and constructing temporary tracks: New material | 20,000 ft. | $2.95 | $2.05 | $2.34 |
| Second hand rails | 20,000 " | 2.95 | 1.85 | 2.34 |
| Taking up old rails, relaying, etc. | 10,000 " | 2.28 | 1.25 | 1.49 |
| Taking up old rails and ties, relaying, etc. | 10,000 " | 1.99 | .99 | 1.28 |
| Frogs and switches in place, complete, per frog | 63 | 207.41 | 150.00 | 1.55 |
| Frogs with single or double slip switches, per frog | 2 | 633.38 | 650.00 | 518.00 |
| Crossing for single track, per crossing | 50 | 234.90 | 250.00 | 275.00 |
| Taking up old frogs and switches and relaying, etc., per frog | 28 | 146.84 | 75.00 | 35.00 |
| Old frogs and switches, single or double slip, per frog | 2 | 368.38 | 250.00 | 75.00 |
| Old single track crossings and relaying, etc. | 20 | 44.90 | 75.00 | 50.00 |
| Lumber used in planking, in place | 60 M. ft. | 35.00 | 30.00 | 30.00 |
| Temporary freight sheds, in place complete | | 9,075.00 | 9,700.00 | 12,540.00 |
| Shifting trolley tracks, per ft. | 1,900 ft. | .95 | 1.25 | .80 |
| Drainage, removal of old buildings, etc. | | 2,500.00 | 3,750.00 | 10,000.00 |
| Total | | $208,005.00 | $145,375.00 | $163,974.00 |

BRICK PAVING.—Sioux City, Ia.—L. F. Wakefield, Cy. Engr., has sent us a detailed statement of the bids received July 21 for paving 13,320 sq. yds. in Pearl St. and 25,480 sq. yds. in West 7th St. with brick on 6 ins. concrete foundation, with Portland cement filler. M. L Flinn did not bid on the work in West 7th St.; W. C. McNamara & Co. bid $1.83 for the pavement in West 7th St.; other bids were same for both streets. The bids for the work in Pearl St. were as follows:

| Items. | M. L. Flinn. | Hanlon & Knepper. | J. B. Smith & Co. | W. C. McNamara & Co. |
|---|---|---|---|---|
| Brick paving, per sq. yd. | $1.54 | $1.75[1] | $1.89 | $1.75 |
| Ex. grdg,cu.yd.,1,000 ft.haul | .10 | .30 | .25 | .15 |
| Overhaul, cu. yd., 1,000 ft. | .01 | .02 | .02 | .01 |
| Concrete, per cu. yd. | 4.20 | 4.00 | 6.00 | 5.50 |
| Gravel, per cu. yd. | 1.00 | 1.50 | 1.50 | 2.00 |
| Broken stone, per cu. yd. | 2.00 | 2.25 | 2.75 | 2.05 |
| Sand, per cu. yd | 1.10 | 1.25 | 1.50 | 1.50 |
| Resetting old curb, lin. ft. | .06 | .10 | .08 | .07 |
| New curb, per lin. ft. | .50 | .65 | .60 | .60 |
| Drain tile, per lin. ft. | .05 | .05 | .04 | .10 |
| Maintenance,1st 5 yrs.,sq.yd. | .005 | .01 | ... | .04 |
| " 2d 5 " " " | ... | .06 | ... | .05 |
| " 3d 5 " " " | ... | .10 | ... | .075 |
| Total | $20,513 | $23,310 | $25,175 | $23,310 |

[1]Des Moines brick, $1.75; Sioux City brick, $1.695.

ASPHALT PAVING.—Brooklyn, N. Y.—The lowest bids received July 20 for paving portions of 14 streets with asphalt on a concrete foundation ranged from $1.40 to $1.50 a sq. yd. for asphalt pavement, according to the street, 70 and 75 cts. a lin. ft. for new curb, 30 and 35 cts. a lin. ft. for old curb redressed, $4 to $5 a cu. yd. for concrete foundations; totals being as follows: Cranford & Co., lowest on 4 contracts, at $42,693; Brooklyn Alcatraz Asphalt Co., 7, $38,940; Fruin-Bambrick Construction Co., 2, $33,513; Eastern Bermudez Asphalt Paving Co., 2, $12,809. N. P. Lewis, Engr. St. Construction, T. B. Willis, Comr. Cy. Wks.

ASPHALT PAVING.—Bridgeport, Conn.—Bernard Keating, Secy. Bd. Pub. Wks., writes us that the following bids were received July 24 for 11,283 sq. yds. of asphalt paving, as advertised in Engineering News.

| | —Guarantee.— 5 yrs. | 10 yrs. |
|---|---|---|
| Barber Asphalt Paving Co., New York | $2.83 | |
| Standard Asphalt Paving Co., New York | 2.95 | $2.95 |
| Boston Asphalt Co., Boston | 2.79 | 3.11 |

## INDUSTRIAL NOTES.

THE EMPIRE BOILER CLEANING CO., 19 Whitehall St., New York, has made an assignment.

THE EDWARD P. ALLIS CO., Milwaukee, Wis., has received the contract for a large hoisting machine for W. A. Clark, Butte, Mont.

THE BABCOCK & WILCOX BOILER CO., New York city, has received the boiler contract for the Union Elevated Loop Ry., at Chicago, Ill.

THE HAMILTON TILE WORKS CO., Hamilton, O., has had a receiver appointed. The company was incorporated in 1884 with a capital stock of $50,000.

THE HOLYOKE MACHINE CO., Holyoke, Mass., has the contract to furnish the Otis Falls Pulp Co., Otis, Mass., with pulp grinders to cost $77,000.

THE WALKER & PRATT FOUNDRY, at Watertown, Mass., started up July 28 after a shut down since July 3. Steady work is expected for the fall and winter.

THE ELLIOTT MACHINE CO., Baltimore, Md., has been awarded a contract to supply the United States treasury at Washington with three large boilers, to cost $9,219.

THE CORLISS STEAM ENGINE CO., Providence, R. I., has been awarded the contract for three 2,500-HP. cross compound engines for the Union Elevated Loop Ry., at Chicago.

PARKKHURST & WILKINSON, iron and steel dealers, Chicago, Ill., have made an assignment; assets, $300,000; liabilities, unknown. The firm made an assignment in 1893 for $500,000.

THE W. H. WOOD FOUNDRY CO., Troy, N. Y., has transferred its property and interests to Mr. James Treadgill and Mr. Matthew McLaughlin, who will conduct the business from this date.

HILL, CLARK & CO., of Chicago, Ill., have received from London, Eng., an order for 40 Brainard milling machines, making 60 of these machines ordered from this company by the same English firm within the last month.

THE MARLIN FIRE ARMS CO., New Haven, Conn., has received a contract for the fire arms for the New York state militia. The Savage rifle, described in our issue of July 23, is to be furnished. The contract calls for 15,000 rifles at a cost of $250,000.

THE CUNARD STEAMSHIP CO., New York city and London, is stated to have ordered the construction of three new 5,000-ton steamships. The vessels are to be built at Belfast and adapted for the carrying of freight and the cheaper passenger traffic.

THE CONSOLIDATED ENGINEERING CO., New Orleans, La., has been incorporated by engineers and general contractors. The company undertakes all classes of engineering designing and contracting. Pres., P. F. Chanute; Vice-Pres. and Gen. Mgr., C. M. Pasquier.

THE INGERSOLL-SERGEANT DRILL CO., New York city, has received an order from the Pennsylvania R. R. Co. for four of its duplex air compressors of the class G pattern with Myer valve gear; steam cylinders 10 ins. in diameter; air cylinders 10¾ ins. in diamter; stroke 12 ins.

THE MIDDLETOWN CAR WORKS, Middletown, Pa., has had a receiver appointed. The bill of complaint was presented on behalf of the Susquehanna Iron Co., Columbia, Pa., which is a creditor of the concern for $4,519, and the Pennsylvania Nut & Bolt Works, Lebanon, Pa., which holds judgments amounting to $4,213.

THE RHODE ISLAND LOCOMOTIVE WORKS, Providence, R. I., having completed all contracts, has closed for an indefinite period, by order of the committee of its creditors, which controls the concern on a five-year extension from February, 1896. A plan is on foot to reorganize the company with New York and Providence capital.

THE APOLLO IRON & STEEL CO., Vandergrift Bldg., Pittsburg, Pa., has issued a pamphlet describing the town of Vandergrift, Pa., where the company has located its works. Vandergrift is on the Kiskiminetas River, and the pictures show a great many views in and around the village. The company is making it a temperance town, no lots being sold without a title which prohibits dealing in liquor. The price of residence lots varies from $750 to $1,050.

THE BALDWIN LOCOMOTIVE WORKS, Philadelphia, Pa., has completed the order for locomotives for Russia; 60 engines and 50 tenders have been shipped during the last two or three weeks. The works is reported as busier than it was at this time last year, and there are a number of orders in process of completion.: The work that is in progress includes the construction of 25 locomotives for the Lehigh Valley Ry., 20 for the Baltimore & Ohio and five for the Erie Ry.

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